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ABSTRACT

This 2-year project at the University of Texas at Arlington (UTA) was conducted to determine the feasibility of providing online periodical indexing to the journal holdings of the UTA libraries by demonstrating an extended use of the libraries' NOTIS Online Public Access Catalog (OPAC) to provide better access to local resources. Three approaches were used: (1) extracting journal indexing records to UTA holdings from two machine readable data files, Infotrac and CIJE, and enhancing the records by adding the UTA libraries' call numbers; (2) reformatting these records into pseudo-MARC for input into the NOTIS OPAC; and (3) conducting controlled testing of student users to compare the success and efficacy of three forms of access to periodical literature--print indexes, CD-ROM, and the local periodical (IAC) and CIJE online databases. Students in marketing and education were asked to conduct specific subject searches in the appropriate indexes and databases and produce hard copy bibliographies. They were also asked to complete a questionnaire. Data from the searches and the questionnaires were combined. It was found that neither age, grades, frequent use of the library, nor experience with electronic or print indexing systems improved the students' ability to retrieve relevant citations. It was inferred that problem analysis skills and mastery of subject vocabulary are most important in effective use of indexing systems. It was concluded that use of the IAC data files could improve the efficacy of student searching and exploitation of local resources. The project timetable, letters of documentation, and copies of the student questionnaires and bibliography grading worksheets are appended. Budget information, the application narrative, and other information from the original proposal are also included. (7 tables, 30 references) (BBM)

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COMPARATIVE STUDY OF PERIODICAL LITERATURE INDEXING: PRINT VERSUS ELECTRONIC ACCESS

Final Report on Grant #R197D90028
To the United States Department of Education
Research and Demonstration Grant

by

Charles B. Lowry, Ph.D.
Director of Libraries
Principal Investigator

July 31, 1992

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Arlington, Texas 76019

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PREFACE

The completion of our research and demonstration grant under the title, College Library Technology Cooperation Grants Program, brings to a fruitful conclusion efforts which began over three years ago, and have involved a large number of individuals. The unequivocal success of the project in meeting the primary goals of the original proposal are a rewarding conclusion for all of us. I would be remiss if I did not thank the participants herewith. I must begin by thanking Louella V. Wetherbee for helping me with the challenging task of developing a core set of ideas around which to build the grant proposal. I must also thank her as Executive Director of AMIGOS Bibliographic Council for putting that organization's technical support directly at the disposal of the grant. When Lou resigned to become an independent library consultant, this assistance was continued by the new Executive Director, Bonnie Juergens, who has been unstinting in her support of the continuation and completion of the grant activity. The AMIGOS staff, particularly Dennis Riley, Bonita Fancher, and Kathy Wilt were indispensable in the completion of the work of this grant. Letters of support from library administrators and experts added authority to the original grant proposal. These include Dr. Donald E. Riggs of the University of Michigan, Rebecca T. Lenzini of the Colorado Alliance for Research Libraries, Jeffery D. Zane of Information Access Company, Dr. William Gray Potter of The University of Georgia, Dr. John Corbin of the University of North Texas, Dr. Martin Dillon of OCLC, and Dr. Robert M. Hayes of the University of California, Los Angeles. Several individuals gave of their time to review documentation and to participate in the work of the advisory group including a site visit. Each of them provided insight, critique, and written analysis of our work. The

letters providing review and analysis by the Grant Advisory Group are attached (see Appendix II). I want to thank the Advisory Group for their contribution--Dr. Richard Madaus of the College Center for Library Automation, Mary Ryan of the U. S. Food and Drug Administration Medical Library, Jean T. Hamrick of the University of Texas at Austin, Sherrie Schmidt of the University of Arizona, and Al Cage of Stephen F. Austin State University. Dr. Bernie Schlessinger of Texas Woman's University acted as an external consultant for the grant project. His sage advice was essential to the success of every stage of the grant project from the first design of pretest to the final analysis of data and writing of this report.

The original grant proposal required eight of the UTA Library staff and librarians would be involved in the work of the grant, but a much larger number of our staff provided indispensable assistance in the success of the grant. At one time or another, all these named individuals participated in lengthy brainstorming sessions and worked on their own to make important contributions, but particular work deserves highlighting. Shirley Sheets and Mary Dabney Wilson were responsible for the development of the plan for mapping the IAC and CIJE records into the "pseudo-marc" format essential to loading over a half millon records into our online system. As always, Robert M. Samson went about the work of making the NOTIS System support our efforts and made it look effortless. David Barthelow in the UTA Administrative Information Service provided essential technical support. Throughout the project Dr. Stephen Stoan offered keen insights into the practical and scholarly dimensions of user information behavior. Staff members who helped in innumerable ways in keeping the

grant project moving forward were Diana White, Carmela Baty, and especially my Secretary, Kay Punneo, who was responsible for numerous organizational responsibilities and the final creation of this report. Ruth Brock, Bobbie Stevens Johnson, Mitch Stepanovich, and Tommie Wingfield made indispensable contributions to the work of the grant. Without them the testing instrument would not have been developed, the pre-test of students would not have been conducted, the post test of students would not have occurred, and the hundreds of hours of analysis of the results of student work would not have been completed. Finally, I must thank Nancy Rowe of the UTA Academic Computing Services who undertook the SAS programming of the results of our study of actual user behaviors, and who never seemed to run out of ingenious ways to get answers to the questions that we had from the data that we presented.

Finally, this report is dedicated to the memory of Dr. Richard Metzger of the UTA Science and Engineering Library. Richard's statistical acumen was indispensable in the early development of our sample groups, the structure of the testing instruments, and the grading of student search data. His participation insured the statistical integrity of our work. He is sorely missed by his colleagues at UTA.

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July 31, 1992

INTRODUCTION

Automation in libraries has a history that dates back about 25 years. Its progress has accelerated almost geometrically in recent years, and librarianship has begun to depart from our original purposes in the application of automation technologies. That original purpose was largely to improve the efficiency of manual systems in libraries, but out of these efforts arose potential applications to dramatically improve patron access to and control of scholarly information (for a good general review of the history of this automation, see Boykin). It seems that there are two significant dimensions to the emerging potential of library systems. The first is the national effort to provide remote access and ultimately true linking. This effort is based on developing the Open Systems Interconnect and the National Research and Education Network, NREN (see Denenberg). The second dimension is devoted to the development of access to electronic information resources at the local level using a variety of automation applications. The players include commercial for-profit information agencies, library consortia and networks, as well as individual libraries.

Libraries have much to contribute as vital information agencies in the emerging national network, and among the most important undertakings will be the enhancement of our online public access catalogs. "Content-enriched access may be the next area of major improvement in information retrieval. However, arbitrary inclusion of large amounts of additional information may impede the process of finding records relevant to the particular search inquiries" (Van Orden, 27). There are numerous elements which can be added to our

OPACS to enrich the number of access points, but not all are equally worthy of consideration and some are "unnecessary extravagances that reduce efficiency" (Van Orden, 28).

What examples have we of content enriched access? Carnegie Mellon University since late 1989 has been enhancing OPAC book records with the addition of contents information when specific criteria are met (Michalak). Similarly, the Colorado Alliance of Research Libraries has been adding table of contents information to about 10,000 journals since mid-1989 (Pitkin). CARL is building this database by keying records directly from the source journals which are subscribed to by consortia libraries. An alternative is to load periodical indexing databases from commercial vendors, which presents a series of expensive considerations including not only the cost of the data, but also the development of access software and the necessary hardware costs for storage. Database vendors have not settled on any common practice for marketing this information except that none allow the library to keep the data beyond the time of the immediate licensing arrangement. Otherwise, they are using a variety of pricing mechanisms including charges for the use of retrospective data, additional charges for the current information, and sliding scales based on the number of potential users in the population or simultaneous users on the system. "Although it is highly understandable that publishers want to base the pricing for their products on use, this philosophy runs counter to general library practice" (Fayen, 347-350). Some research analysis of cost suggests that the greater expenditure for loading databases locally and providing online access versus print will be offset by a greater retrieval of information by users. This is dependent, of course, on a wise selection of databases which are low in cost

yet have high user activity, and focus particularly on undergraduates (Meyer, 226-241). "When asked what new information should be added to the library catalog, public and academic library users [have] identified journal tables of contents as the most important information not in the public catalog" (Van Orden, 29). The purpose of our work at The University of Texas at Arlington is to respond to this particular set of needs--provide enriched access to the local collection through the OPAC; enhance access to periodicals for undergraduates; and achieve this economically.

The UTA Libraries received from the United States Department of Education a $162,000 Research and Development Grant under the College Library Technology Cooperation Grants Program (1989-1991) and are matching it with an expenditure of nearly an equal amount, which was in excess of grant requirements. The two year project timetable was adhered to closely and all major objectives were achieved in a timely fashion (see Appendix I of this report for notes on exceptions). The grant was used to support a project to demonstrate the feasibility of providing online periodical indexing to the journal holdings of the UTA libraries. This indexing access was mediated by the Libraries' NOTIS Online Public Access Catalog (OPAC). The main purpose of this grant activity is to demonstrate an extended use of the OPAC which provides better access to local resources, specifically the periodical collection of the UTA Libraries. From the perspective of the typical user, this is a logical extension of the use of the OPAC for access to book literature held in the same collection. I will refer to our local periodical databases by using the shorthand terms IAC

Online and CIJE Online which identifies the origin of the records used to build these two databases.

There are several innovative approaches in using technology and measuring results that distinguish this project:

- o Extracting journal indexing records to UTA holdings from the machine-readable bibliographic data files Infotrac (general periodical and business indexes) and CIJE, and enhancing the records by adding the call numbers used in our Libraries;

- o Re-formatting these extracted indexing records into "pseudo-MARC" files which can, like standard MARC records, be loaded into the NOTIS OPAC and used by patrons through the familiar command/search structure they have already experienced; and

- o Conducting a significant amount of controlled testing of student users to determine the comparative success and efficacy of the three basic forms of access to periodical literature--print indexes, CD-ROM, and the IAC/CIJE Online periodical databases. This third component--user testing--was one on which over half of the grant effort was focused.

DATABASE CONSTRUCTION AND NOTIS SYSTEMS OPERATION

Building the database of periodical articles which could be loaded into the NOTIS System was a complex team effort that involved numerous UTA Library Staff and the personnel in the Computer Services Division of AMIGOS. This work was facilitated by geographic proximity and the freedom to meet frequently together as a group beginning in the fall of 1989. We first tackled IAC's General Periodicals Index Database, a combination of their Periodical Index and their Business Index which corresponded to the InfoTrac system already used in UTA Libraries. In 1989, this database provided indexing to 1,273 journal titles and contained in excess of 1,500,000 records. The lessons we learned from our work with this large database were directly applicable to the much smaller database from ERIC Current Index to Journals in Education. The CIJE database indexed over 750 journals and contained about 394,000 records.

The first step was to "map" the IAC data field into related MARC fields and to provide the needed tag indicator(s), and the subfield(s). This work was undertaken by staff from the Collections and Bibliographic Services Division of UTA Libraries. The IAC records contain 59 data fields of which 39 were used. Discarded fields contained information which we felt was not germane to our needs, particularly those which related to the management of the records in the IAC environment or which duplicated information in other IAC fields. The second task for the Library was to review the list of titles covered in the IAC databases and compare it to the periodicals held by UTA. A WordPerfect file was

prepared of about 809 UTA journal titles which corresponded to indexing of 1,273 titles by IAC. A similar WordPerfect file was later constructed for the 352 periodical titles held by UTA from the CIJE list of over 750. The file included LC call number, and the inclusive years for the holdings of each journal title. This work provided the basis to accomplish several tasks in data processing to transform IAC records into a pseudo-MARC record that could be loaded into NOTIS. The next step was extraction of individual periodical article records from the IAC data representing only journals held by UTA Libraries and the enhancement of these records with call numbers. AMIGOS, our grant subcontractor, was able to undertake the programming and data processing.

AMIGOS developed the required product utilizing existing MARC Record Upgrade Software and its Tandem system. There were several steps to this process. Data preparation included the requirement of converting IAC tapes from 6,250 BPI to 1,600 BPI utilizing an external vendor. In addition, IAC reblocked all tapes from 8,000 to 4,000. Finally, AMIGOS developed a conversion table to convert the EBCDIC format to ASCII which allowed for the extended character set necessary for processing library records in the Tandem environment. The next group of tasks related to tag mapping using the code developed by the UTA Libraries. The code was prepared to construct one MARC tag from more than one IAC field mapping the IAC field into various subfields. Tag 773, the "Host Item Entry," is a good example. Ten different IAC fields were used to develop the 773 MARC field including subfields for main entry, title, edition, place, publisher, date of publication, volume, issue number, pagination, CODEN, and ISSN. Code was also developed to handle

continuation lines for fields longer than 80 characters. Special tag handling was also necessary for records with more than twenty 650 subject fields and to handle partial records at the start of a volume.

The code also added a unique control number to the 001 tag as each record was processed. In addition, a methodology was developed to transfer the journal owner file from the WP format to a format usable by the Tandem mainframe. Finally, matching/merging code was developed to read the IAC records which had been converted to MARC records and to select for output only those on the UTA Libraries subscription list. Local holding and call number information was merged into the MARC record prior to output. The most time-intensive elements of the programming portion of this work involved the development of the EBCDIC to ASCII conversion table and the construction of MARC tags with multiple subfields. The most labor intensive and time-consuming data processing portion of this project was the hardware time necessary to process the entire database, reading every single record and converting it into MARC format. However, it is important to understand that this processing is required only one time and once accomplished can be reused for any library which might wish to load periodical article records. It has been the AMIGOS experience that it takes approximately six hours per tape in processing time. The initial IAC database consisted of 53 tapes and this number was incremented by one or two per month as updates were received. The CIJE database was shipped on seven tapes. AMIGOS also learned that its current processing environment was not the most conducive to an efficient and profitable execution of this service, which requires regular updating of the processed database and

shipments to the library. By the end of the project AMIGOS was moving from its outdated Tandem Non-Stop II batch processing environment to Hewlett Packard System 9000, Series 842 database environment. Any vendor developing a service similar to that studied in the UTA demonstration grant will have to work in a database oriented computer environment to achieve the timeliness and efficiency necessary to supply a cost effective product.

Virtually all of the experience gained in work on the IAC database was directly applicable to the CIJE data, including design of the EBCDIC to ASCII conversion table. However, a significant problem arose in the management of the CIJE data in which the records did not contain a marker at the end of each field. This meant that the record headers, which defined field length, had to be programmed so that the individual fields could be captured exactly as they were read and tagged properly. This is a significantly more complex programming task than that which was required for the IAC data which had an end of field marker. Additionally, CIJE utilizes three different formats for date field, and it is necessary for programs to accommodate this difference to determine a date match. The testing phase also revealed that the CIJE database contains abbreviated publication names. A matching algorithm was written in order to accommodate these variations in data entry for titles. It is worth pointing out some of the problems which inevitably occur in developing matching algorithms and must be corrected. For instance, articles from the title Sports, which UTA does not own, were incorrectly extracted by the program and matched with the call number for Sports Illustrated which we do acquire. There were also a few instances of bogus ISSN matching due to errors in the IAC database. Test tapes and record dumps were

provided by AMIGOS to UTA Libraries to allow for testing of the record prior to processing the entire database. Glitches were ironed out, and requisite programming changes were made.

The IAC data file was separate from the production online catalog. In NOTIS terminology the IAC periodical index database constitutes a separate institution group. In our case, the institution group was already defined to the system so there were no additional steps required in order to provide the load environment. This decision to create a separate database was based on two important considerations. Although IAC uses LCSH as its indexing thesaurus, it "enhances" the terminology--and CIJE uses a unique thesaurus. We did not want the headaches of subject authorities for periodicals introduced into the NOTIS OPAC, which is very clean. Moreover, the vendor supplied periodical records are "licensed" databases, which we did not want commingled with our own OPAC records. Under normal circumstances, defining a new institution group would require the definition of a number of new VSAM files, modification of the CICS operating environment, and modification of the NOTIS architectural tables. The IAC data was loaded to the new database by way of a customized OCLC tape load program. The program (NOTIS module LBC90) was further modified by UTA staff to account for the peculiarities of the MARC-formatted IAC data. Database counts indicate that we received 431,766 IAC records from AMIGOS of which all but two were loaded successfully in September 1990 using the aforementioned LBC90 load procedure. The two records which did not load were of excessive length or had too many subject heading entries based on limitations of the NOTIS Library Management System. We

subsequently loaded 34,126 CIJE records in September 1991 with another iteration of the LBC90 programs, and all loaded without difficulty. The CIJE database was strikingly smaller than IAC, about 8% of its size.

The IAC Online Database was indexed using standard NOTIS indexing programs which generate author/title, subject, call number, and standard number indexes. Access to the periodical index was accommodated through a locally developed addendum to the standard CICS "good morning" screen. This entry screen prompted users to enter the appropriate CICS transaction code in order to access either the periodical index database or the UTA Libraries' production online catalog. System security was also provided through locally developed software which prevented users from entering any but the authorized transaction codes. Access to staff mode transactions is acquired by way of standard CICS SNT security. During the Winter of 1991, the possibility of using software developed at Purdue University was considered to improve on this somewhat cryptic CICS menu screen access. Experience revealed that users had difficulty moving between the OPAC and the IAC online database. Moreover, users approaching a terminal already logged into a database could not readily determine where they were in LUIS. However, this approach was abandoned when it was determined that Purdue had not implemented NOTIS version 5.1 and that the software was incompatible.

The alternatives were to consider extensive local programming modifications to the OPAC or to purchase the NOTIS Multiple Database Access System (MDAS) at a cost of

$75,000. MDAS had two major advantages: it included a license to apply the Keyword/Boolean engine to the periodical databases, and it had a user friendly front end which eliminated the difficulties presented by the standard CICS access. We acquired the MDAS software and installation was completed in August 1991. The IAC database was reconfigured and given full Keyword/Boolean indexing as an MDAS file. Consequently, in September, CIJE was initially loaded as an MDAS file.

QUANTITATIVE EVALUATION OF STUDENT SEARCHING BEHAVIOR

Because one of the most important objectives of this grant research was measurement of the effectiveness of the periodical database from the user perspective, a significant quantitative evaluation was designed and implemented as part of the grant. We were determined to avoid two major pitfalls of similar studies. "There is a clear distinction between the large literature in information retrieval treating the measurement of effectiveness from theoretical or laboratory perspective using such measures as recall and precision and the question of how to measure the effectiveness of a real search conducted on a real system for a real information problem of a real patron. Virtually nothing has been written on the latter problem" (Harter and Jackson, 526). The quantitative evaluation was designed to assure that real patrons were dealing with a real question in a real system.

The second pitfall of library system studies is that they are usually dependent on the expressed opinion of users about success and satisfaction. With respect to library reference services, it is clear that "client satisfaction is a highly questionable indicator of the quality of service. If even managers (including managers with professional qualifications) are not satisfactory evaluators of professional work, untrained lay people are totally unacceptable" (Pierce, 15). What is true of reference services is equally true of measuring the effectiveness of automation based information systems. In answering the often repeated call for real life user studies, we wanted to go beyond our student's subjective opinions. This meant that the design of the study had to include an analysis of the results of the searches for periodical literature as well as the traditional user opinionnaire evaluation.

Today there are several mediating systems through which we gain access to periodical literature in the library setting: print indexes; online access to commercial databases, frenquently based on a print counterpart; compact disk versions of online and print databases; and more recently, local loading of these databases. There are, of course, other avenues of subject indexing access such as the annual index to an individual periodical title usually produced by the publisher. Likewise, it is well understood that researchers, including undergraduate students, use the reference footnotes in relevant articles and books as a primary access point to the literature of the subject. In fact, it has been observed that periodical indexing schemes and catalogs are merely a way to initiate a search on a subject and that they provide not a comprehensive view but only one access point to the literature (see Stoan, "Research and Library Skills: An Anlysis and Interpretation"). "Indeed,

structured literature searches in print or online sources, using either assigned descriptors or free text capabilities, can be shown empirically to suffer from grave limitations in terms of precision and recall" (Stoan, "Research and Information Retrieval Among Academic Researchers . . . ," 253). "Fulfillment of user needs is a central function of reference services and research in this area is badly needed. We cannot say with any degree of certainty what effectiveness means in the context of the use of any reference tool, whether print or electronic.... Perhaps a poor search is quite adequate for the vast majority of information problems in many environments. We simply do not know" (Harter and Jackson 525).

There is on the other hand a fairly large literature investigating the effectiveness of mediated searching in online databases, primarily by library professionals. The advent of CD-ROM periodical indexes has stimulated a surge in the investigation of end-user searching results. By and large, this latter research is compromised because it relies on the opinions of users expressed through Likert-type scales. It has recently been suggested that a more discriminating method is the use of a six-point anchored scale for success in conjunction with a three-point Likert scale of satisfaction (Ankeny, 352-526). Given the magnitude and pervasiveness of the impact of CD-ROM and the relative expensiveness of these systems compared to traditional print systems, it is imperative that we begin assessing the merits of periodical indexing mediated through a variety of formats (Saloman 203-19; see also Coleman and Muroi, 137-60). The quantitative research we have done at The University of

Texas at Arlington is designed to compare similar print, CD-ROM, and local online indexing systems.

The acceptance level for CD-ROM indexes is extremely high both among librarians and users alike (Saloman, 206-07). As one observer put it "I suppose one need not have read reports in order to be able to make that prediction. Why shouldn't students like them? What are the alternatives? In our library these are to use the print counterparts or pay the unpredictable costs for an online search of the database--preceded by a wait for an appointment with a librarian and often followed by a wait for the delivery of such results through the mail." This observation would apply in many libraries, perhaps most (Bristow, 26).

What can be said then to summarize the published research on the use of CD-ROM periodical indexes? The common conclusion of these studies is that patrons view CD-ROMs favorably in the overwhelming number of cases, often as high as 95%. Likewise, they believe that their search results are satisfactory in similar proportions. They view the systems as easy to use and give rave reviews to the printing capabilities which are almost always available. CD-ROM patrons also assert that little training is required to effectively use these systems and that they save a significant amount of time using CD-ROM versus other means of access to periodical literature. It should be no surprise that they also express a high degree of satisfaction with the fact that CD-ROM's are "free." When asked to make comparisons between the CD-ROM and traditional print, their expressed preference is for the

CD format, which they believe produces better search results. If our patrons made decisions concerning the expenditure of library funds, we would buy more CD's, and few among us would brave the strident objections that would likely occur if we were to cancel CD-ROM's. Moreover, in our library culture the presence of large numbers of CD-ROM gives us the edge in bragging rights (for surveys of user satisfaction with a variety of CD-ROM periodical indexing databases, see Allen, "Database Selection...;" Allen, "Patron Response...;" Beltran; Butler and Kortman; Ernest and Monath; Kleiner; Mullan and Blick; Schultz and Salomon; and Steffey and Meyer).

One important lacuna in reported research is structured comparisons between the various periodical indexing approaches. Some are beginning to appear such as a 1986 study which indicated that for searches in biological and psychological literatures "students can locate relevant citations more quickly online than they can manually even though they are inexperienced with the search system..." (Penhale and Taylor, 219). Comparison of end-user online systems and CD-ROM systems for Agricola indicated user satisfaction with both, even when search results were meager (Charles and Clark, 321-28). In a 1987 study comparisons were made between InfoTrac II and Readers' Guide. The results were inconclusive because of the small number of students participating. However, the preliminary results showed that students were more satisfied with the results of their searches in InfoTrac than Readers' Guide, but the actual results of those searches proved just the opposite (Reese, 384-89). It is such quantitative evaluation studies which we must undertake when investigating these systems.

UTA STUDY DESIGN

During the spring of 1990 a series of controlled pre-test studies with UTA students in marketing and education were undertaken to provide a baseline experience. The marketing group included 48 subjects who were asked to do a specified subject search in Business Periodicals Index and InfoTrac on CD-ROM, and to produce hard copy results from their searches to be graded later by librarians. A concurrent and similar study was conducted with 45 education students using the Current Index to Journals in Education in both print form and the OCLC Search CD-450. Immediately following their search activities in the two databases the students were asked to complete a questionnaire of the type that has been specifically used to assess user responses in similar studies.

The analysis of these initial studies will not be reported here. The importance of these investigations for later work was that they provided a thorough understanding of the problems and issues for this kind of study in a controlled and somewhat ideal environment. The difficulties in managing subject classes lead us to use a "captive audience" from ENGL 3300 "Information Research Methods" taught by librarians for our studies in the fall of 1990 and the spring of 1992. In the fall of 1990, 43 of the 56 students from this class, referred to in subsequent discussion as Group I or the Business Group, retrieved periodical literature from Business Periodicals Index, InfoTrac and the online system. Similarly, in the spring 1992, 43 of 98 students were drawn from the same class, referred to subsequently as the

Education Group or Group II, searched CIJE in its three formats. The "Information Research Methods" course taught by the librarians gave us a target group of students, and 43 ultimately were tested for each test group. The Business Group ranged in age from 18 to 40, but 80% were 25 years or younger while the Education Group was 18 to 49 with 71.7% age 25 or younger. It may be expected that younger students would be more accepting, if not adept, at the use of computers. There were two freshmen in the Business Group and one in the Education Group but the bulk, 70% and 74% respectively, were juniors and seniors.

Groups of nine or fewer students were tested in a series of sessions managed by librarians which consisted of brief training followed by smaller groups of three students working in print-form indexes (i.e. BPI and CIJE), three in the CD indexes (InfoTrac and Search CD-450), and three in the UTA online databases extracted from IAC and CIJE. After a 20 minute session with each, the students rotated to a database they had not used, and so on until they had worked through each of the three indexing systems. Students working with BPI and print CIJE were provided a photocopier so that they could quickly obtain hard copy on which to make notations of the selections of citations. This feature provided ideal conditions for searching in the print indexes. A case can be made that the same ideal conditions were provided for InfoTrac, CD450 and the online indexes which were reserved for students involved in the testing program and provided printers in top condition. In the case of the print and CD indexes, test groups had the additional step of looking up the call numbers in our print listing of serial holdings, whereas in the online indexes the call numbers and locations were available within each individual article citation. This is an important

difference that had profound results on the retrieval efficiency of students, to be discussed later.

Once the students had completed their searching they were asked to fill out a questionnaire (Appendix III). The first four questions were designed to get basic information concerning the individual students and questions 5-17 to ascertain the type of library experience they had in the previous two semesters in which they were enrolled. They were asked to complete the questionnaire in terms of library use for courses other than the "Information Research Methods" in which they were currently enrolled. Questions 18-26 provided the students' own evaluation of the three indexing systems on which they had just completed their searches.

The search problem for the Business Group was as follows: "Illegal entry by computer hackers and invasions of computer viruses have caused government agencies and corporations great concerns in recent years. White collar crimes are often perpetrated using computers as well. In short, important data stored on these computers is at risk of falling into the wrong hands, or being destroyed altogether. Find articles which focus on solutions to these problems." The search problem for the Education Group was: "It is often assumed that academically-gifted students have no problems. Research, however, indicates that such is not the case. Some gifted students are under-achievers, while others have emotional, physical, financial and various other problems. Please find enough articles to write a paper on the problems of the gifted." These search problems were designed and tested by

librarians to ensure that no one of the three indexing systems would have a particular advantage based on the terminology used. It is also important to note that the Business Group used the UTA online index and InfoTrac before the Keyword/Boolean capacity was installed. Once MDAS was installed, the Education Group was able to search both the UTA Online index for CIJE, as well as the Search CD450 with either Keyword/Boolean or single term subject vocabulary. In addition, experience gained in data collection with the Business Group suggested additional data collection from the Education Group which would enrich our understanding of the results. These differences are reflected in the discussion which follows.

Once the students had completed their work the librarians began the process of scoring citations as "relevant," "somewhat relevant" or "not relevant." The scoring sheets were slightly different for the two groups and are included with the questionnaires. A complete bibliography of every unique citation identified by the students was prepared and rigorous consistency was used in the case of all articles in judging the relevance of each to the search topic. The student subjects in the Business Group identified 833 unique citations, an average of nearly 20 each, while those in the Education Group identified 519 unique citations, or an average of 12.35 each. This difference may be attributed to the smaller number of periodical articles indexed by CIJE. However, it is still striking that Group II students found 62% of the number found by Group I, but in a CIJE database which was only 26% the size of IAC. Perhaps the restriction of time allowed for searching to both groups best explains this result. Once the search results of the student subjects in both groups were graded for relevance and success in finding call numbers, this data was combined with the

individual student's survey responses. The data was keyed and processed using SAS by UTA's Academic Computing Services. The citations identified by the Business Group came from 180 different serial titles which represent about 14% of the total journals indexed by BPI and InfoTrac combined. Similarly, the Education Group found citations spread across 172 periodical titles, which represents about 20% of the titles selectively and completely indexed by CIJE. There were 96 journal titles indexed in common by IAC and CIJE.

Some of the anecdotal observations of the librarians conducting the test are interesting and are supported by data analysis. "Students had trouble looking up call numbers for journals with initials for titles, for example, CPA Journal. Students seem to guess at journal abbreviations rather than look them up, even though they had a list of abbreviations. For example, the title Info Systems was frequently confused with Information Systems. Given that these students were in a library class, we expected a slightly higher score on relevant and correct articles than we actually saw reflected in the score sheet. We need to compare performance to the students in the pre-test who were presumably familiar with the disciplinary orientation of their search topic. Subject headings and access points made a bigger difference than we expected. Although many articles were in all three databases, students typically found them in a single index." For instance, only 17 articles (3.3% of the total) were found in two databases by a student subject in Group II. None identified the same article in all three sources. "We were a bit surprised at the large number of unique article titles which were found as well as the fact that there were so many relevant headings and sub headings."

Data analysis of the Group II students search strategies provide some interesting insights (see Table I). This group was taught the use of the Boolean operator "and," which was also implied in their multiple term searches when not explicitly used. No student used other operators (e.g. "not," "or") though instructions were available in both the online and Search CD450 systems. Each time a student initiated a search with new terms, it was counted. Using this method there were 545 different search strategies used by Group II students. Given the choice these students used multiple term searches in around 66% of their searches. Moreover, multiple term searches were more successful, producing relevant or somewhat relevant citations 93.3% of the time. Single term searches were successful only 64.5% of the time. Group I students used many older articles with dates as early as 1981, though computer information changes rapidly. Likewise, Group II students identified many older articles dating back to the 1970's. If a grade had been involved or if they had been producing a paper for a subject discipline, perhaps we would have seen a different selection of more recent articles. There were many ways for a student to go wrong. For instance, they might have chosen subject headings that were too broad or they might have chosen great subject headings and failed to get correct call numbers.

TEST RESULTS--USER PERCEPTIONS VERSUS GRADED SUCCESS

The fundamental presumption that guided all of our testing during the Grant is that users' perceptions of success might be at variance with the actual results of their searches if we collected and analyzed those results. We can now say unequivocally that we were correct

in this presumption. It is somewhat dismaying that user perceptions are so different from search results, but the knowledge at least prepares us to deal with the problem in the design of information systems and in our reference and instructional work.

Accordingly, in our analysis of the results of the work of 43 student subjects in each test group, there are two quite distinct data sets--one which focuses on the students' opinions about the experience and the other which measures their actual success as graded by librarians. However, it may be of help to examine first the general characteristics of the two groups. Most of these students are consistent library users--49% of Group I and 28% of Group II used the library between 6 and 20 times, while 18.6% of Group I and 9.3% of Group II used it over 20 times during the most recent two semesters. This is understandable given our UTA Libraries' population counts which have been around 950,000/year or an average of 37 visits a year for our 24,000 students. Over 95% in both groups felt that their use of the Library was helpful in their assignments, and over 55% felt that it was helpful 75%-100% of the time. Most (81% in Group I and 88% in Group II) were satisfied that they used the library well. Ironically, over 28% of Group I and nearly 35% of Group II students never used print form indexes, and another 55% of both groups used them 5 or fewer times for class work. Similarly, over 23% of Group I and 53% of Group II never used CD-ROM. Only 23% of Group I and 14% of Group II had used CD's more than five times for class work. By contrast, they used the LUIS OPAC much more frequently--46.5% of Group I and 39.5% of Group II used it 6-20 times and 30% and 12% respectively used it in excess of 20 times.

These students come to the Library in search of books more often than journal articles. Over 16% of the 86 students never looked for journal articles, but less than 11% did not want books. Moreover, they looked for books more often--52% six or more times, while around 41% looked for articles that much. Not surprisingly, once they reached their junior year the instances of student use of the library increased. About a third of the Freshman and Sophomores came to the Library more than 6 times while about 58% of Juniors and Seniors did so. Most of our subjects also relied on library staff. Over 72% consulted a librarian 1-5 times and 11% more than that during the most recent two semesters of matriculation.

The Group I student perceptions of their work with the BPI, InfoTrac, and IAC Online are very much in accord with the data from other studies. About 69% of the students felt that more time would have improved their searching success in all three databases. However, the Group II results differed somewhat. Most felt that more time would have helped in searching CIJE print (57.5%) and CIJE Online (66.7%), which is not a dramatic variance. However, 83.3% felt more time would help with CIJE CD450, a testimony to the fact that it is a more complex tool to use than InfoTrac. On the other hand, a minority felt that more instruction would have helped (InfoTrac 12.5%, IAC Online 18.4%, BPI 25.8%, CIJE Online 35.7% and CIJE Print 22.5%). Once again, CIJE CD450 was perceived differently and 61% wanted more instruction.

The student satisfaction with the search results and their opinions about ease of use are illustrated in Tables II and III. The vast majority agreed that their search results were satisfactory to answer the question presented by the search topic of whatever indexing system they searched. However, they felt more strongly that this was the case with InfoTrac and IAC Online than with the print form BPI. The dissimilarities were greatest when comparing the Group II results. Around 93% felt that CIJE Online search results were satisfactory as against 70% for CIJE Print and 78% for CIJE CD. Group I students rated InfoTrac results 85.7% satisfactory, IAC Online 83.8%, and BPI 70.8%. As can be seen, satisfaction is uniformly higher with the results of the electronic searches. In the case of ease of use, the opinions were even more favorable toward the automated indexing systems as against the print. Table III demonstrates that BPI was rated easy or very easy only 69% of the time, InfoTrac 97.6% of the time, and IAC Online 95.3% of the time. CIJE Print was rated easy 68.3%, CIJE CD 92.7%, and CIJE Online 88.1%.

The students were also asked to rank order the three indexing systems for ease of use and best results of their searches. In Table IV using Likert type scales, we can see clearly their propensity to judge the automated systems better than the print systems. For instance, Group I rated InfoTrac easiest to use 53.7% of the time, IAC Online 40% of the time and BPI a scant 5% of the time. IAC Online was slightly disadvantaged in this comparison because it was not browsable like InfoTrac and BPI. This lack of a "contextual aspect to the user's search that is often invaluable in suggesting additional appropriate headings" (Preschel, 52) did not affect its high ratings which were better than BPI but slightly lower than

InfoTrac. The Education Group found CIJE CD450 easiest to use 44.4% of the time, but CIJE Online rated better at 46.2%. This Group also gave the CIJE Print a better rating than BPI of 18.4%. Nonetheless, results of "ease of use" ratings overwhelmingly favor CD and Online access. Similarly, students felt that their best searching results came from InfoTrac 51.2% of the time, IAC Online 46.3% of the time, and BPI 7.3% of the time. Group II believed the best searching results came from CIJE CD 52.6% of the time, CIJE Online 42.5%, and CIJE Print 10.3%.

Let us now turn our attention to the study of the graded relevancy of the results of both groups of student subjects' searches in the three indexing systems. Remember that the UTA online indexes are subsets of the InfoTrac and CIJE databases representing about 28% of the indexing in InfoTrac and 8.6% of the indexing in CIJE. Table V illustrates the overlap and relevance for all articles graded. Strikingly, for Group I 24.2% of the relevant articles were found in BPI alone, while 17.6% were found in InfoTrac alone and only 5.8% in UTAPI. Almost 76% of the total 814 citations were found in a single database, while nearly 72% of the 539 relevant citations were located in a single database. Only 16.2% of the relevant articles were found in two databases and a scant 2.5% were found in all three. Group II found an even higher number of the 514 citations in a single database, 92% in all. This dispersion is even more surprising when the smaller size of the CIJE database is considered, 394,000 records to IAC's 1,500,000. The Education Group found a smaller 18.9% of relevant citations only in the print CIJE than the 24.2% found solely in BPI. However, a higher 6.8% of the relevant citations were only found in the CIJE Online, but a

dramatically smaller 5.6% soley in the CIJE CD. This reflects the lower overall percentages of citations retrieved from the CIJE CD (28.4% of the total 514) compared to InfoTrac (52.5% of the total 814). Again, one is lead to speculate that this is due to the greater complexity of the CIJE Search CD450 system. In all, Group II found 71.6% of the 514 citations deemed relevant or somewhat relevant in a single source. Only 6.1% of the relevant articles were found in two sources and less than 0.4% in three sources by the Group II students. It is clear from this data that students, dramatically constrained by time, can still come up with a large number of unique article citations dealing with the same problem using different indexing systems. It is also dramatically demonstrated that this literature is widely dispersed with only a small percent coincidence.

On the other hand, producing lists of citations is not the same as having articles in hand as Table VI illustrates. Looking only at relevant citations, the mean average obtained by a student from the Business Group searching all three databases presents some interesting results. The total relevant citations for BPI (an average of 15.1 per student) and InfoTrac (an average of 14.8 per student) are fairly close. IAC Online is roughly three citations less on average (11.9 per student), but this is to be expected since students were searching a much smaller database. Group II mean average results in retrieving relevant citations varied--CIJE Print 4.5 per student, CIJE CD 2.5 per student, and CIJE Online 3.5 per student. In this case the online system produced better results than the CD system, but the print source was again the clear cut winner. The comparative numbers change substantially when we investigate the number of relevant citations which are to be found in the UTA Libraries

periodical collection. BPI and InfoTrac decline relative to IAC Online which represents only periodicals held by the Library. CIJE Print and CIJE CD both produce fewer relevant citations to be found in the local UTA collection.

Finally, constrained by time, students had to look up correct call numbers for articles found in BPI, InfoTrac, CIJE Print, and CIJE CD. The net result was that the efficiency of the IAC and CIJE Online searches far outstripped the other four sources. Given the fact that students, particularly undergraduates, restrict the amount of time they will devote to recovering relevant information for assignments, a very strong case can be made for an online periodical index representing the local collection. Students using IAC Online will be able to recover from the library's shelves 57% more relevant articles than those using BPI alone and 83% more than those using InfoTrac alone. Similarly, students using CIJE Online will retrieve 17% more citations than with CIJE Print and 169% more than with CIJE CD. These retrieval rates are in the end what matters most to the typical student patron. From the library perspective they have the added value of increasing the effective use of local collections and reducing pressures on reference and Interlibrary Loan staff. These conclusions also strongly support the one underlying hypothesis tested by the grant project.

We had hoped to examine various user characteristics to determine the reasons for actual success in recovering relevant citations. This provided several surprising results. We can say unequivocally that the age of the students in both groups had absolutely no relationship to their ability to recover citations. Eighteen year old's seemed to be no better

or worse than forty-nine year old's using the indexing systems in this study. Twenty-one of the Group I student subjects and thirty-five of those in Group II consented to their Grade Point Average being used in our analysis. We looked with considerable expectation towards some insight. However, as with most studies we found no correlation between success in library work and GPA. Likewise, student success in retrieving relevant citations from the indexing systems was not improved by more frequent use of the library, which we assumed would mean more library experience or savvy. It was somewhat puzzling that neither age nor frequency of library use had any relationship to the success rate in recovering relevant citations.

Prior experience in using print form indexes did not increase the success of students in recovering relevant citations from BPI. Nor did prior experience with compact disk systems have any effect on success with InfoTrac in our study. This pattern held also with the Online indexes. Prior use of its equivalent, the LUIS OPAC, did not improve the ability of the student to retrieve articles from the indexing system. Thus, in no case did prior experience in library use or use of specific tools give even a slight advantage in recovery of relevant citations by our two study groups. Moreover, our students' opinions of this success showed a clear bias toward the automated systems, although we now know that our relevancy studies do not support this feeling.

It is important to highlight these results. Age, grades, frequent use of the library, specific experience with electronic or print indexing systems--none of these improved the

effectiveness of our student subjects in retrieving citations relevant to the problem posed by the research question. It must be said that all of those students were familiar with basic organization of the Library and library reference tools. After all, they were all taking our course in library use. On the other hand, the difference between inexperience and mastery in using the indexing systems to which both groups were exposed in our tests does not convey any relative advantage to the experienced student. One must assume that is because these systems--print, CD, and online--are organized so that the typical user may learn to use them with relative effectiveness after brief experience.

This left us with the open question concerning the predictors of success. If library use, age, class standing, GPA, and prior experience with similar indexing systems did not influence the outcome, what did? We think that the answer may be found through inference. Table VII charts the hit rates by individual students in all three databases. It bears some explanation. In the first place, it excludes 4 of 86 students in the two test groups who got different hit rates for relevant citations in all three periodical indexing systems. For illustrative purposes, it also excludes the "Somewhat Relevant" citations retrieved by student subjects, focusing only on those deemed most "Relevant." The table can be read as a sort of "if then statement." For instance, ten students who found 11-20 relevant citations in the "First Database" found 1-10 in the other two. Likewise, the table indicates that 25 students had the same hit rate of 1-10 in all three databases. In all fifty students had hit rates in two databases which were the same and which varied only slightly from a third database. For instance, thirteen students who had a hit rate of 1-10 in the "First Database" had a slightly

better 11-20 hit rate in the other two databases searched, but these are similar results. Eight students who had a hit rate of 1-10 relevant citations in the "First Database" had a worse hit rate of 0 relevant citations in the other two. Of the 86 students tested 33.7% retrieved the same number of relevant citations in all three databases. Another 58.1% retrieved the same number in two and about the same from the third indexing source.

What can be inferred from these data? If students have about the same hit rate, that is, success in retrieving relevant citations, in each of the three databases regardless of variables like library use and experience, then one explanation emerges. The student success is conditioned primarily by their ability to analyze the specific problem presented by the search topic, and to understand the terminology they are encountering in the periodical indexing systems. Problem analysis skills and mastery of subject vocabulary are then most important in effective use of indexing systems.

GENERAL CONCLUSIONS

What do these results tell us about library systems and services? At least in the case of periodical indexes, print, while never as popular, may serve a student as well as CD-ROM based systems. On the other hand, a well constructed periodical article database enhancing the local OPAC by indexing locally held journals can improve by a significant margin the efficiency of students in retrieving relevant information and exploiting local resources. Though prior experience with systems of bibliographic control does not seem to improve the

hit rate of students, this does not mean that we should cease to incorporate instruction in the use of these systems into our BI programs. It may tell us that our instructional programs should focus more on teaching the vocabularies of such systems rather than the mechanics, as has been suggested by some of the literature (Bundage). Our results convincingly indicate that we should be wary of accepting high user satisfaction as the equivalent of high user success in recovering information in our libraries.

The work undertaken at the University of Texas at Arlington also suggests an important library market for which there is not at present any supplier. Libraries with small to medium size periodical collections are the logical market for such a product which would index a high proportion of their current subscription lists. It is unlikely that they will have the resources to mount a broad array of commercially available periodical databases to achieve this level of coverage of their collections. On the other hand, the value added to their services by a smaller "tailor made" periodical database is demonstrable. The provision of smaller collection specific periodical indexing databases is not at the present time a service of any of the traditional vendors. UTA working with AMIGOS and spending a sizeable amount of funds was able to demonstrate the feasibility of such an approach by utilizing subsets of the IAC databases and the ERIC CIJE database. It is worth mentioning that UTA Libraries using the NOTIS Multiple Database Access System will in the Fall of 1992 load eight Wilson databases, Cinahl, PsycINFO, and IAC's Business Index. This undertaking, while costly, could have been accomplished for an amount equivalent to the USDE

contribution to the demonstration grant--$162,000--a high figure for many libraries. Surely vendors might supply subsets of their databases at more manageable costs.

Neither the commercial vendors nor agencies like ERIC have demonstrated an interest in filling this market niche. The commercial vendors are vigorously peddling their tape loading services, but these are not customized in any fashion. Indeed, there seems to be movement in the direction of packaging larger amounts of data for numerous subject areas to leverage market advantage over competitors. Concurrently a new product is appearing in the electronic periodical access market--the table of contents listing (TOCL). At present there are several major suppliers, including the Colorado Alliance for Research Libraries, the first to enter the field; and the OCLC/Faxon alliance, which at this writing has not yet made its databases available for libraries and end users. These services are excellent so far as they go. They provide highly current information on periodical contents and document delivery. What they lack is effective controlled indexing vocabulary, which renders subject searching far less effective since it draws primarily from the titles and less frequently from the abstracts of articles. Retrieval without controlled subject headings is demonstrably and dramatically less effective. Yet, these TOCL database suppliers have ventured into the area of customization. CARL, for instance, has a program for including the local holdings information in the database for a subscribing library. It is only a small additional step to supplying the library with the database for local loading. If subject headings were provided with the periodical information, then an affordable periodical indexing product would be

available in the library market which conformed closely in its capabilities to the work done in The University Texas at Arlington Libraries demonstration grant.

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TABLE I

SEARCH TERM CHARACTERISTICS:
CIJE ONLINE AND CIJE CD450

Type of Search	Relevant	Somewhat Relevant	Not Relevant	Total
	N R% T%	N R% T%	N R% T%	N T%
Online Single Term	22, 27.5, 4.0	19, 23.7, 3.5	39, 48.7, 7.2	80, 14.7
Online Implied "And"	56, 57.1, 10.3	30, 30.6, 5.5	12, 1.2, 2.2	98, 18.0
Online Explicit "And"	36, 70.6, 6.6	13, 24.5, 2.4	2, 3.9, 0.4	51, 9.4
CD Single Term	37, 34.9, 6.8	42, 39.6, 7.7	27, 25.5, 4.9	106, 19.5
CD Implied "And"	81, 47.1, 14.9	83, 48.3 15.2	8, 4.6, 1.5	172, 31.6
CD Explicit "And"	29, 76.3, 5.3	7, 18.4, 1.3	2, 5.3, 0.4	38, 7.0

Note: Single term searches contained one word. If two term searches were used, the "And" operator was implied. N = number search terms; R% = row percent, and T% = total percent.

TABLE II

SATISFACTION WITH SEARCH RESULTS
GROUP I AND GROUP II

	BPI	INFOTRAC CD	IAC ONLINE
	Col%	Col%	Col %
Strongly Agree	22.0	50.0	42.9
	70.8	85.7	83.8
Agree	48.8	35.7	42.9
Disagree	22.0	11.9	11.9
Strongly Disagree	7.3	2.4	2.4

	CIJE PRINT	CIJE CD	CIJE ONLINE
Strongly Agree	9.5	22.0	19.0
	69.9	78.1	92.8
Agree	52.4	56.1	73.8
Disagree	35.7	19.5	7.1
Strongly Disagree	2.4	2.4	0.0

TABLE III

SATISFACTION WITH EASE OF USE
GROUP I AND GROUP II

	BPI	INFOTRAC CD	IAC ONLINE
	Col%	Col%	Col %
Very Easy	33.3	57.1	54.8
	69.0	97.6	95.3
Easy	35.7	40.5	40.5
Somewhat Difficult	31.0	2.4	4.8
Very Difficult	0.0	0.0	0.0

	CIJE PRINT	CIJE CD	CIJE ONLINE
Very Easy	17.1	39.0	26.2
	68.3	92.7	88.1
Easy	51.2	53.7	61.9
Somewhat Difficult	24.4	7.3	11.9
Very Difficult	7.3	0.0	0.0

TABLE IV

EASE OF USE AND BEST RESULTS
RANK ORDERS

	BPI		INFOTRAC		IAC ONLINE	
	N	Col%	N	Col%	N	Col%
#1 Easiest	2	5.0%	22	53.7%	16	40.0%
#2 Next	7	17.5%	16	39.0%	19	47.5%
#3 Least	31	77.5%	3	7.3%	5	12.5%
#1 Best	3	7.3%	21	51.2%	19	46.3%
#2 Next	9	22.0%	16	39.0%	16	39.0%
#3 Least	29	70.7%	4	9.8%	6	14.6%

	CIJE PRINT		CIJE CD		CIJE ONLINE	
	N	Col%	N	Col%	N	Col%
#1 Easiest	7	18.4%	16	44.4%	18	46.2%
#2 Next	8	21.1%	14	38.9%	18	46.2%
#3 Least	23	60.5%	6	16.7%	3	7.7%
#1 Best	4	10.3%	20	52.6%	17	42.5%
#2 Next	9	23.1%	13	34.2%	17	42.5%
#3 Least	26	66.7%	5	13.2%	6	15.0%

TABLE V
CITATION OVERLAP AND RELEVANCE
FOR ALL ARTICLES FOUND

Source Database	Relevant	Somewhat Relevant	Not Relevant	Totals
	N & %	N & %	N & %	N & %
BPI	197 24.2%	35 4.3%	69 8.5%	301 37.0%
InfoTrac CD	143 17.6%	31 3.8%	69 8.5%	243 29.8%
IAC Online	47 5.8%	9 1.1%	17 2.1%	73 9.0%
BPI/CD	47 5.8%	5 0.6%	2 0.2%	54 6.6%
BPI/Online	9 1.1%	1 0.1%	2 0.2%	12 1.5%
CD Online	76 9.3%	18 2.2%	15 1.8%	109 13.4%
BPI/CD Online	20 2.5%	1 0.1%	1 0.1%	22 2.7%
TOTAL	539 66.3%	100 12.2%	175 21.4%	814 100%
CIJE Print	97 18.9%	80 15.6%	35 6.8%	212 41.2%
CIJE CD450	29 5.6%	47 9.1%	36 7.0%	112 21.8%
CIJE Online	35 6.8%	80 15.6%	34 6.6%	149 29.0%
Print/Cd	26 5.1%	4 0.8%	0 0.0%	30 5.8%
Print/Online	4 0.8%	2 0.4%	1 0.2%	7 1.4%
CD/Online	1 0.2%	1 0.2%	0 0.0%	2 0.4%
Print/CD Online	2 0.4%	0 0.0%	0 0.0%	2 0.4%
TOTAL	194 37.8%	214 41.7%	106 20.6%	514 100%

Note: There were 833 articles found by students in Group I, of which 19 articles were missing a relevance or a database source code. There were 517 articles found by Group II, for which data was missing on five. This missing data is not included in the table.

TABLE VI

CITATION RELEVANCY: MEAN AVERAGES PER STUDENT AND TOTAL NUMBER OF ARTICLES RETRIEVED

	BPI	INFOTRAC CD	IAC ONLINE
	MEAN/N	MEAN/N	MEAN/N
Total Relevant	15.1/650	14.8/638	11.9/512
Relevant @ UTA	13.6/586	11.8/509	11.9/512
Relevant with Correct LC#	7.6/328	6.5/281	11.9/512
Somewhat Relevant	1.9/82	2.8/122	1.3/57
Somewhat Relevant with Correct LC#	0.8/33	1.5/66	1.3/57
Not Relevant	2.0/85	2.7/116	1.4/60
	CIJE PRINT	**CIJE CD**	**CIJE ONLINE**
Total Relevant	4.5/192	2.5/108	3.5/150
Relevant @ UTA	3.4/148	1.6/67	3.5/150
Relevant with Correct LC#	3.0/128	1.3/55	3.5/150
Somewhat Relevant	2.5/107	1.5/63	3.3/141
Somewhat Relevant with Correct LC#	1.5/64	0.9/37	3.3/141
Not Relevant	0.9/38	1.1/48	0.9/37

TABLE VII

RELEVANT CITATION HIT RATES IN ALL THREE DATABASES BY INDIVIDUAL STUDENTS

First Database	Number of Citations in Second and Third Database				
Hit Rates	**0**	**1-10**	**11-20**	**21-30**	**>30**
0	1	10			
1-10	8	25	13	2	
11-20		10	3	4	
21-30			3		1
>30		1		1	

Note: 4 of the students got hit rates in all three databases.

APPENDIX I

PROJECT TIMETABLE

The Research and Demonstration Grant proposal contained a project timetable (Appendix IV) which laid out the two year plan for the grant under 26 different activities. This appendix includes notations concerning all 26 items. Most of these are dealt with in detail in the body of this report. However, some notations here indicate those activities for which circumstances dictated action other than originally planned. What follows is a list of the original number and item and a brief explanation of our actions during the grant:

1. **Design Pretest for User Success/Satisfaction With Indexing Systems**--The grant group and the librarian advisors developed a series of questions which were used in two surveys of student pretest groups. These are not included in this report but were the basis of the post test surveys which are included (see Appendix III).

2. **Pretest of Users and Analysis of Results**--Two student pretest groups drawn from Marketing classes of the College of Business and Education classes in the Center for Professional Teacher Education were brought to the Library. The business students participated in a test using Business Periodicals Index and the InfoTrac CD based Index. The education students participated in a test using the Current Index to Journals in Education and the CIJE OCLC Search CD450 System. The analysis of the results of this testing period indicated a number of significant revisions which needed to be made in the pretest survey instrument applied to the students and in the physical organization and flow of the testing itself.

3. **Design of Post-Test of User Success/Satisfaction With OPAC Indexing**--Based on the experience in the pretest period a final version of the survey instruments was prepared as well as a plan for running the test sessions. This survey and the organization of the test sessions were used in precisely the same way with both student test groups. These activities are described at length in the body of this report.

4. **Post-Test of Users and Analysis of the Results**--The organizational of the sessions and analysis of the results is described in detail in the body of this report.

5. **NOTIS Software Adaptation for IAC Database Indexing**--The original CICS screens were discarded and an expenditure of $75,000 made in order to acquire the MDAS software for this purpose. These activities are described in detail in the body of this report.

6. **IAC Database "Mapped" to OCLC/MARC**--The mapping work is described in the body of the report.

7. **Periodicals "Matching Key" to IAC Database Developed**--See the main body of this report for a description of this activity.

8. **AMIGOS Programming for IAC Databases Extraction**--See the body of this report for a description of this activity.

9. **AMIGOS IAC Retrospective Database Processing**--See the body of this report for a description of this activity.

10. **Load of Extracted IAC Records**--See the body of this report for a description of this activity.

11. **Loads of IAC Database Updates**--As indicated in the body of this report, the processing environment at AMIGOS was poorly adapted to the initiation of the continuous processing requirement of the project. The original budget for the project called for AMIGOS to donate half of the $40,200 in programming and processing cost attendant to the project. However, by the end of the project the total cost (see letter from Dennis Riley, (Appendix II) reached over $98,000. Thus, AMIGOS absorbed in excess of $78,000 in expenses which had not been planned for. Accordingly, it was that to dispense with the database updating, since we had sufficient experience in the processing of the periodical databases and tape loading to feel satisfied that this could be accomplished without an actual test. Moreover, additional cost overruns were not sustainable by AMIGOS. It is clear that the computing environment is a heavy determinant in the cost of sustaining the activities of a project like the one undertaken in this grant. The original cost estimates in the proposal for AMIGOS programming and database processing proved to be 41% of the final costs. Such cost factors are vital in order for any vendor to understand the total costs for developing a similar product for libraries.

12. **Two Additional IBM 3380 Drives Acquired/Installed**--These drives were purchased during the period of the grant activity.

13. **CIJE Database "Mapped" and "Match Key" Developed**--See body of this report for a description of this activity.

14. **AMIGOS, CIJE Initial Programming and Database Extraction**--See body of this report for a description of this activity.

15. **CIJE Database Load**--See body of this report for a description of this activity.

16. **Initial Advisory Group Site Visit**--Progress of work by January 1990 had been delayed due to the late provision of funds to start the grant and the usual problems in initiation of a project of this magnitude. Accordingly, the first site visit by the Advisory Group was eliminated. As an alternative, the Advisory Group was kept posted of activities throughout the early part of the grant.

17. **Load of CIJE Database Updates**--This activity was eliminated due to factors outlined above (see Number 11 above for explanation).

18-22 That portion of the grant aimed at extracting additional records from the IAC Database for other libraries in the Research Library Interest Group of AHE (the local library consortium) was eliminated from the grant activity. The excess cost

experienced by AMIGOS (as described in Number 11 above) made the undertaking of this prohibitively expensive. In addition, experience with the IAC and CIJE Databases indicated clearly that we would learn little new in terms of specific user responses. In addition, work done on the UTA extraction made it clear that we could master the extraction of additional records representing other libraries in the immediate region. Thus, this portion of the activity was deemed to be exorbitantly costly and redundant to the central purpose of the grant itself.

23. **Presentation on Project Progress to AMIGOS Membership**--The progress of the project was reported to three membership meetings of the AMIGOS Bibliographic Council general membership in 1989, 1990, and 1991.

24. **Final Report Prepared/Released to ERIC/RIE**--This activity has been undertaken simultaneously with the submission of the report to the USDE.

25. **Advisory Group Final Meeting**--The Advisory Group Meeting was held for two days March 24-25, 1991. During the two-day session a detailed overview of all activities throughout the grant period were provided by all individuals participating in the grant activity along with significant written documentation. In addition, each of the members of the Advisory Group prepared letters assessing the quality and effect of the project work as they saw it. These letters are provided in the Appendix II. One member of the Advisory Group, Dr. Alvin Cage, was unable to attend the meeting at the last minute due to illness.

26. **Article Prepared for Submission to Journal**--The work of preparing an article for publication was not completed at the time of the submission of this report. It will be subsequently undertaken by the Principal Investigator.

APPENDIX II

LETTERS OF DOCUMENTATION

DEPARTMENT OF HEALTH & HUMAN SERVICES

Public Health Service

Food and Drug Administration
Rockville MD 20857

RECEIVED
APR 1 8 1991
University of Texas at Arlington

MEMORANDUM

Date: April 12, 1991

To: Dr. Charles Lowry, Director of Libraries
University of Texas, Arlington

From: Mary Ryan, Chief, Technical Operations Branch
Food & Drug Administration Medical Library

Mary Ryan

Subject: Department of Education Grant

In reviewing the progress on the UTA Library's grant project to create a local database of journal article citations, it is obvious that the Library staff and the AMIGOS staff worked hard to succeed. It appears that the major objectives of the project have been met.

Database

The database is relatively easy to use. Searching by author, title or subject can be done quickly, the screen displays are well-designed and easy to read, and the onscreen instructions are good. The help screens are instructive and easily accessed. The team mentioned they would like to do more with front-end screens using MDAS and would like to have the name of the system at the top of the screens. This would be very helpful, especially since the same terminals provide access to multiple systems. Also, having an automatic logout time to a default screen would be very useful.

Including the call numbers and location information on the display screens certainly facilitates rapid retrieval of materials. Displaying subject headings under which the articles are indexed helps patrons identify which articles they might need and helps them to revise searches to include subject headings they might not have thought of before.

Problems with the database which still need to be resolved include duplicate records (this is currently being addressed), lack of keyword searching (which will be available soon), and the need for more cross references (i.e., from initialisms to complete words, etc.).

It was obvious from talking to the grant team and from using the database that mapping decisions were made cautiously and an effort was made to develop a generic approach which could be applicable for others. The lack of standards for mapping journal article citation data into MARC-based records made the team's effort difficult, and is a broad standards issue which needs to be resolved soon on an international level. Included in the

broader issue are the questions of how to handle duplicate subscriptions and split runs in multiple locations. Also, procedures to handle withdrawals and cancellations of titles, conversions to different formats (i.e., hardcopy to microform) etc., need to be developed. These enhancements would probably require specialized programming to make global changes.

Testing

Developing and implementing testing is important in evaluating the success of a project and in gathering information for improvements. The testing done to evaluate the usefulness of the UTA database was well-designed and produced some useful and interesting results.

The UTA staff spent a significant amount of time and effort to develop a test that would adequately measure how well students used the database. I think it was important to have the people who were doing the testing involved in developing the questionnaire. Not only did they have a lot to contribute to the development of the questionnaire based on their many years of reference experience, but they also understood the questionnaire and could do a better job of administering the test. The questionnaire they developed and the method used to administer the test were well-planned and executed. The staff did a good job of analyzing the results of the tests as well as analyzing the test itself.

The questions about the students' use of the library were informative. It would have been interesting to determine which database each student used first to see if results varied with this factor, whether they were male or female, etc.

Summary

I was impressed with the complexity and the success of the project. The UTA staff members who are working on the project and the AMIGOS staff seem knowledgeable and dedicated to making the project a success.

The database is easy to use and should save library patrons a lot of time. The fact that the database runs on a NOTIS system and that the staff worked hard to develop a system that would be applicable in other installations is very important. Many other libraries can benefit from their work. I am sorry that they will not have enough time to load the holdings for other libraries in the Metroplex. I hope that they and AMIGOS will continue to work on the project.

The UTA staff and the AMIGOS staff deserve credit for a job well-done.

College Center for Library Automation
[redacted] Florida 32304
Voice 904 922-6044 SunCom 292-6044 FAX 904 922-6431 SunCom 292-6431

April 19, 1991

Dr. Charles B. Lowry
Director of Libraries
University Libraries
Box 19497
The University of Texas at Arlington
Arlington, Texas 76019-0497

Dear Dr. Lowry:

I am writing to summarize and review my visit last month in connection with the Advisory Group meeting associated with your grant from the United States Department of Education Grant under the "College and Library Technology Grants Project".

First, let me commend you and your entire group effort on this project. It was quickly clear that the commitment of you and your staff, coupled with the obvious expertise brought to bear, has resulted in not only quality research, but the creation of a model of library technology experimentation which should be placed in the national limelight.

It was clear from the report documentation that a great deal of thought and associated review of the literature preceded the actual experimental activity. Many would consider it somewhat difficult to create such a quality bibliography in such a new and relatively unexplored field. I found a number of items listed which I intend to pursue with my staff as background for the activation of our statewide online catalog here in Florida.

In my opinion, the base research design is not only sound, but exemplary. The extra efforts taken by your group to establish quality baseline data is worthy of note. The use of a "pre-test" environment (to not only "practice" the process but to review the research design before measuring the actual results), in my opinion, separates your project from a great deal of library "research" which only creates a single "laboratory" situation and never duplicates the experiments.

Of particular importance is the research design context which is not specific to any particular online system. There were no "special" attributes used within your IBM based NOTIS system that would have "skewed" the results of the findings. Indeed, the research was so straightforward that it should, in my opinion, be gereralizable across automated library systems currently available in the marketplace. This is another instance which illustrates the general quality of this project.

The findings related to student perceptions and favoritism of the automated products could be an assumed response; however, the data revealing the relevancy of the located citations in the automated versus the print environment were somewhat shocking. This, to me, represents a clear avenue for intensified and expanded research efforts. As this finding is further explored by your project and hopefully others, there may be significant lessons drawn which relate to the entire higher education process in the "Information Age". Futurist author, John Naisbett, has noted that perhaps we have access to too much information and too little knowledge. The relevancy of retrieved citations certainly correlates with this concept. As more and more libraries expand their use of automated library systems and online bibliographic reference services, (based on your research) there will be a greatly expanded need for added and intensified efforts to teach library users to pay particular attention to the quality of each reference retrieved. The quality of information retrieved can clearly be strongly diluted in the breadth of responses retrieved by automated search methods. Perhaps there is also an added research topic in the possible relevancy impact as students become increasingly adept at utilizing subtle search approaches which more directly capitalize on the power of the automated system to discriminate among it's stored data.

Your research data clearly outlines the perceptions of the user population which strongly favor online products and services. It may be very interesting to pursue further research in the area of possible variety in the avenues for journal citations within the online catalog environment. The approach taken by the UTD effort (which strips away unavailable journals from the general journal citation product) clearly offers the users a significantly enhanced and very powerful tool which can access the contents of the on-site library; however, the researcher must still utilize other tools (the CD-ROM and print tools for example) to expand an in-depth research topic - of course, this is a restatement of age old library problems. However, as shown by your project, the online catalog technology offers new approaches which are strongly favored by library users. This aspect is one of note, in my opinion, as your effort has documented a library

product/service which exhibits very strong library user satisfaction and support - in spite of the fact that the relevancy of retrieved citations was lower than more traditional print indexes. Indeed user satisfaction plays such an important role that library patrons will (as your staff noted) literally stand in line for automated access when (by your research) it may not provide as relevant responses to search inquiries. This certainly has a lesson for the library world as more and more commercial access is provided to online text via home personal computer networking. Students in the not too distant future may even pay for access to information that is available free in the library but in a different format.

One final observation relates not to the research but to the nature of the project itself. Your efforts are exemplary in the arena of the library as an institution experimenting and working to define the information format needs of its users. This has been the exclusive purview of the information vendors. More efforts of the nature of the UTD project could certainly impact the perspective of the information industry. In my opinion, (which was certainly reinforced by your project) the expertise available from the library perspective has never been afforded its appropriate place in the developing information industry. Further, it may very well be a needed role for the library of the near (much nearer than most librarians think) future to not only store and make information available, but to vigorously develop and market information packaging as well as actual information products for not only library users and other libraries, but the broader information marketplace in general.

I would like to close with genuine appreciation for the hospitality of you and your staff. This particular trip was a memorable and exceptional one for me. Thank you for the opportunity to participate.

Sincerely

J. Richard Madaus, Ph.D.
Director

jrm

Arizona State University

University Libraries
Office of the Dean
Tempe, Arizona 85287-1006
602/965-3950

7 May 1991

Dr. Charles B. Lowry
Director of Libraries
University of Texas at Arlington
Box 19497
Arlington, TX 76019

Dear Charles:

My apologies for the delay in responding to the site visit. The interviewing here is near completion and I have my fingers crossed. The competition is pretty tough, time will tell.

The progress made to date on the U.S. Department of Education Title II-D grant was impressive. I was most interested in the sophistication of the user evaluation. The reliability of the results should be quite high, providing direction for the remainder of us.

Upon returning to Tempe, I dialed in following the instructions which you provided. I made my way through the system fairly easily. I always wonder when a process is obvious to librarians how it feels to users. The response time was adequate and I executed several searches. I then did the same searches against CARL with the Wilson Indexes and noted that I could put together your serials list in a rather backward manner or study the differences in indexing.

The transportability of the programming to other sites sounded as modular as possible given the circumstances under which AMIGOS is operating. One concern which I expressed at the meeting was the ability to handle the holdings of the titles held in microform and paper. Best wishes as you move into the home stretch. I trust you will be keeping us aware of your progress.

Cordially,

Sherrie

Sherrie Schmidt
Interim Dean

SS:id

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at Arlington

June 15, 1991

Dr. Charles B. Lowry, Director
University Libraries
Library Administration Box 19497
The University of Texas at Arlington
Arlington, Texas 76019-0497

Dear Dr. Lowry:

In my December, 1988 letter of support for U.T. Arlington's Title II-D grant proposal for Online Public Access Catalog Enhancement, I stated that the project had been well researched and well planned; and that I fully expected that the results of the project would be as outlined. In my March, 1991 visit to the U.T. Arlington campus as a member of the Grant Advisory Group, I found this to be the case. Not only had all project tasks to-date been satisfactorily completed, but the review session itself was well planned and thorough. The excellent U.T Arlington staff involved in the project were knowledgeable, quite competent to perform the proposal activities, and, in addition, wonderfully enthusiastic about what they had learned for use in their library and for sharing with the larger community. The AMIGOS staff had similarly performed their parts of the proposal well, were quite professionally prepared for the review process, and were already realistically considering products of potentially marketable value based on the grant experience.

Based on my visit, my suggestions for the remainder of the project are:

1. Prior to the next visit, provide the Grant Advisory Group members with dial-access to the UT Arlington online catalog to allow time for a more in-depth look at the periodical index entries, ease of use, and integration into the online catalog searching structure than was feasible during the site visit.

2. Although not included in the original proposal, it would be helpful as part of the final evaluation (or as a subsequent activity) to

compare and contrast in so far as is possible the results of the UT Arlington experience with those of other institutions,e.g. CARL, which have attempted similar types of online catalog enhancement.

3. Place an emphasis in the final part of the grant activity on assessing the impact of regional periodical index holdings information on resource sharing and document delivery alternatives among the RLIG participants. This type of information is greatly needed for planning in the library community.

4. Continue to provide input into vendor provision of records in standardized MARC-like format--emphasizing compatibility with what other vendors are doing; and emphasizing the importance of accurate and complete ISSN information to facilitate matching of online catalog bibliographic and vendor periodical index records.

5. Emphasize issues, how problems were resolved, and potential applicability to other library situations in the final grant report. Very sound and practical decisions based on real-life situations have been made at UT Arlington. Sharing these will be helpful to the community at-large.

Staff of UT Arlington and AMIGOS are to be congratulated on a job well-done.

Sincerely,

Jean T. Hamrick

Jean T. Hamrick
Asst. Director for Information Systems Planning

xc: Bonnie Juergens

Information Access
COMPANY

362 Lakeside Drive • Foster City, California 94404
Telephone 415 378 5000 • 800 227 8431

CONFIDENTIAL

September 10, 1991

Dr. Charles Lowery
University of Texas, Arlington
P.O. Box 19497
Arlington, TX 76019

Dear Dr Lowery,

This is to verify that Information Access Company has leased General Periodicals Index - Academic on tape to the University of Texas in Arlington for $9,000 annually for a term of agreement for two years. This license fee reflects an annual discount of $11,000 (cumulatively, $22,000) given to the University by IAC, as the listed subscription fee for GPI-A is $20,000 annually.

Sincerely,

Sandi White
Sandi White

cc. Arta Zygielbaum
Jim Bohrer

a Ziff Communications Company

AMIGOS

"Library Resource Sharing Through Automation"

September 19, 1991

Dr. Charles B. Lowry
Director of Libraries
University of Texas at Arlington
Library
Post Office Box 19497
Arlington, Texas 76019

Dear Dr. Lowry:

The following is a breakdown of the volumes and costs associated with the specifications development, programming and processing of the UTA serials project. It is important to note that the dollar amounts shown are not what was billed.

For the specifications and programming, I used our standard price of $50.00 per hour.

For the processing charges, I used our record processing charge from our MARC Record Upgrade product of $.05 per record processed. Since this was a Research and Development type project, the $.05 is arbitrary and needs to be finalized as this effort is turned into a finished product.

Specifications and Programming @ $50.00/hour	623 hours	$ 31,150.00
CIJE Records Processed @ $.05/record	422,249	$ 21,112.00
IAC Records Processed @ $.05/record	917,564	$ 45,878.00
Total		$ 98,140.00

If there is any other information which I can supply, please let me know.

Very Truly Yours,

Dennis Riley

Dennis Riley
Associate Director,
Computer Services Department

DR/am

cc: Bonnie Juergens

AMIGOS Bibliographic Council, Inc., 12200 Park Central Drive, Suite 500, Dallas, Texas 75251
(214) 851-8000 Nat'l (800) 843-8482 FAX (214) 991-6061

APPENDIX III

SURVEY QUESTIONNAIRES AND CITATION SCORING SHEETS USED WITH STUDENT TEST GROUPS

UNIVERSITY OF TEXAS AT ARLINGTON LIBRARIES
UNITED STATES DEPARTMENT OF EDUCATION
LIBRARY TECHNOLOGY GRANT QUESTIONNAIRE
PHASE I

A. STUDENT INFORMATION SHEET

1. **Name:** _____ **Age:**_____

   Address: _____

   City: _____ **Zip:** _____

   Telephone: _____

2. **Social Security Number:** _____

3. **Class: Freshman**_____ **Sophomore**_____ **Junior**_____ **Senior**_____

   Graduate Student_____ **Other (Please indicate)**_____

4. **Do we have permission to obtain your Grade Point Average for the purpose of this study--privacy and confidentiality will be maintained with grades used only in aggregated statistics? Yes**____ **No**____ **Signed**_____

Please answer the following questions 5-17 concerning your personal use of library resources for courses other than Information Research Methods in which you are currently enrolled. Also, please answer for any courses you have taken during your two most recent semesters of enrollment.

5. **In the last two semesters of enrollment I have used the UTA Library for assignments connected with class work:**

   Never____ **1-5 times**____ **6-20 times**____ **More than 20 times**____

6. **In the last two semesters of enrollment I have used other libraries for assignments connected with class work:**

   Never____ **1-5 times**____ **6-20 times**____ **More than 20 times**____

7. **If you indicated in Questions 5 or 6 that you had used libraries in the past six months, did you find information that helped with your assignment:**

   75-100% of the time_____ **50-75% of the time**_____

   Less than 50% of the time_____ **Never**_____

8. Were you satisfied that you had used libraries well:

75-100% of the time_____ 50-75% of the time_____

Less than 50% of the time_____ Never_____

9. In the last two semesters, I have used print-form periodical indexes to find articles:

Never____ 1-5 times____ 6-20 times____ More than 20 times____

10. If you answered that you have used print-form periodical indexes in question 9, please check which of the following print-form periodicals indexes you have used:

*Reader's Guide to Periodical Literature*_____
*Business Periodicals Index*_____
CIJE _____
Predicast F & S Index _____
Other. Please Specify _____

11. In the last two semesters, I have used the *CIJE, Infotrac* system or other similar CD-ROM systems at the UTA Library, or elsewhere:

Never____ 1-5 times____ 6-20 times____ More than 20 times____

12. In the last two semesters, I have used LUIS (UTA's Online Computer Catalog):

Never____ 1-5 times____ 6-20 times____ More than 20 times____

13. In the last two semesters, I have used UTA Libraries for study:

Never____ 1-5 times____ 6-20 times____ More than 20 times____

14. In the last two semesters, I have used UTA Libraries to read course reserve materials:

Never____ 1-5 times____ 6-20 times____ More than 20 times____

15. In the last two semesters, I have used UTA Libraries to obtain reference assistance from a librarian:

Never____ 1-5 times____ 6-20 times____ More than 20 times____

16. In the last two semesters, I have used UTA Libraries to locate books:

Never____ 1-5 times____ 6-20 times____ More than 20 times____

17. In the last two semesters, I have used UTA Libraries to locate periodicals/magazines:

Never____ 1-5 times____ 6-20 times____ More than 20 times____

B. SEARCHING *INFOTRAC*

Following the search procedures given to you and on the basis of those instructions, you have supplied the librarian with *Infotrac* printouts of relevant article citations and call numbers for the journals in which those articles appear.

18. Do you agree that you found enough citations in *Infotrac* to satisfy the assignment requirements?

Strongly Agree____ Agree____ Disagree____ Strongly Disagree____

a. Would more time have helped?

Yes_____ No_____

b. Would more instructions have helped? Yes_____ No_____

Comments _____

_____

19. Did you find the *Infotrac* CD-ROM database index to articles

Very easy to use_____ Easy to use_____

Somewhat difficult to use_____ Very difficult to use_____

C. SEARCHING *UTA ON-LINE ARTICLES INDEX*

Following the search procedures given to you and on the basis of those instructions, you have supplied the librarian with printouts relevant article citations.

20. Do you agree that you found enough citations in the *UTA On-line Articles Index* to satisfy the assignment requirements?

Strongly Agree____ Agree____ Disagree____ Strongly Disagree____

a. Would more time have helped? Yes____ No____

b. Would more instruction have helped? Yes____ No____

Comments: _____

_____

21. **Did you find the *UTA On-line Articles Index***

Very easy to use_____ Easy to use_____

Somewhat difficult to use_____ Very difficult to use_____

D. SEARCHING *BUSINESS PERIODICALS INDEX*

Following the search procedures given to you and on the basis of those instructions, you have supplied the librarian with photocopied lists of relevant article citations and call numbers to the journals in which they are found.

22. **Do you agree that you found enough citations in the *Business Periodicals Index*?**

Strongly Agree____ Agree____ Disagree____ Strongly Disagree____

a. Would more time have helped? Yes____ No____

b. Would more instruction have helped? Yes____ No____

Comments:_____

_____

23. **Did you find the *Business Periodicals Index***

Very easy to use____ Easy to use____

Somewhat difficult to use____ Very Difficult to use____

E. COMPARISON OF *INFOTRAC, UTA ON-LINE ARTICLES INDEX*, and *BUSINESS PERIODICALS INDEX*

24. **Now that you have searched *Infotrac, UTA On-line Articles Index*, and *Business Periodicals Index* for this searching assignment, which system do you feel**

a. Was easier to use (rank order 1=easiest to use, 2=next, 3=least)?
UTA On-line Articles Index _____
Infotrac _____
Business Periodicals Index _____

b. Gave the best results (rank order 1=best results, 2=next, 3=least)?
UTA On-line Articles Index _____
Infotrac _____
Business Periodicals Index _____

25. **How would you describe the process of looking up and finding call numbers for periodicals required when you were using *Infotrac* and *Business Periodicals Index*?**

Easy to find_____ Somewhat easy to find_____

Somewhat difficult to find_____ Very difficult to find_____

26. **How would you describe the process of finding call numbers for periodicals using the *UTA On-line Articles Index*?**

Easy to find_____ Somewhat easy to find_____

Somewhat difficult to find_____ Very difficult to find_____

BPI, INFOTRAC, & UTA/PERIODICALS CITATION SCORING

STUDY NUMBER_____

BUSINESS PERIODICALS INDEX

TOTAL

27. For citations judged to be relevant:
    A. Number of correct Call #'s _____ [ ]
    B. Number of incorrect Call #'s _____ [ ]
    C. Number of Call #'s not looked up _____ [ ]
    D. Source periodical non-UTA _____ [ ]

28. For citations judged to be **somewhat** relevant:
    A. Number of correct Call #'s _____ [ ]
    B. Number of incorrect Call #'s _____ [ ]
    C. Number of Call #'s not looked up _____ [ ]
    D. Source periodical non-UTA _____ [ ]

29. For citations judged **not** to be relevant:
    A. Number of correct Call #'s _____ [ ]
    B. Number of incorrect Call #'s _____ [ ]
    C. Number of Call #'s not looked up _____ [ ]
    D. Source periodical non-UTA _____ [ ]

INFOTRAC

30. For citations judged to be relevant:
    A. Number of correct Call #'s _____ [ ]
    B. Number of incorrect Call #'s _____ [ ]
    C. Number of Call #'s not looked up _____ [ ]
    D. Source periodical non-UTA _____ [ ]

31. For citations judged to be **somewhat** relevant:
    A. Number of correct Call #'s _____ [ ]
    B. Number of incorrect Call #'s _____ [ ]
    C. Number of Call #'s not looked up _____ [ ]
    D. Source periodical non-UTA _____ [ ]

32. For citations judged **not** to be relevant:
    A. Number of correct Call #'s _____ [ ]
    B. Number of incorrect Call #'s _____ [ ]
    C. Number of Call #'s not looked up _____ [ ]
    D. Source periodical non-UTA _____ [ ]

UTA PERIODICALS INDEX

33. For citations judged to be relevant:
    A. Number of correct Call #'s _____ [ ]
    B. Number of incorrect Call #'s _____ [ ]
    C. Number of Call #'s not looked up _____ [ ]

34. For citations judged to be **somewhat** relevant:
    A. Number of correct Call #'s _____ [ ]
    B. Number of incorrect Call #'s _____ [ ]
    C. Number of Call #'s not looked up _____ [ ]

35. For citations judged **not** to be relevant:
    A. Number of correct Call #'s _____ [ ]
    B. Number of incorrect Call #'s _____ [ ]
    C. Number of Call #'s not looked up _____ [ ]

UNIVERSITY OF TEXAS AT ARLINGTON LIBRARIES
UNITED STATES DEPARTMENT OF EDUCATION
LIBRARY TECHNOLOGY GRANT QUESTIONNAIRE
PHASE II

A. *STUDENT INFORMATION SHEET*

1. *Name:* _____ *Age:*_____

   Address: _____

   City: _____ *Zip:* _____

   Telephone: _____

2. *Social Security Number:* _____

3. *Class: Freshman*_____ *Sophomore*_____ *Junior*_____ *Senior*_____

   *Graduate Student*_____ *Other (Please indicate)*_____

4. *Do we have permission to obtain your Grade Point Average for the purpose of this study--privacy and confidentiality will be maintained with grades used only in aggregated statistics? Yes*____ *No*____ *Signed*_____

Please answer the following questions 5-17 concerning your personal use of library resources for courses other than Information Research Methods in which you are currently enrolled. Also, please answer for any courses you have taken during your two most recent semesters of enrollment.

5. *In the last two semesters of enrollment I have used the UTA Library for assignments connected with class work:*

   *Never*____ *1-5 times*____ *6-20 times*____ *More than 20 times*____

6. *In the last two semesters of enrollment I have used other libraries for assignments connected with class work:*

   *Never*____ *1-5 times*____ *6-20 times*____ *More than 20 times*____

7. *If you indicated in Questions 5 or 6 that you had used libraries in the past six months, did you find information that helped with your assignment:*

   *75-100% of the time*_____ *50-75% of the time*_____

   *Less than 50% of the time*_____ *Never*_____

8. *Were you satisfied that you had used libraries well:*

75-100% of the time_____ 50-75% of the time_____

Less than 50% of the time_____ Never_____

9. *In the last two semesters, I have used print-form periodical indexes to find articles:*

Never____ 1-5 times____ 6-20 times____ More than 20 times____

10. *If you answered that you have used print-form periodical indexes in question 9, please check which of the following print-form periodicals indexes you have used:*

Reader's Guide to Periodical Literature_____
RIE (Resources in Education)_____
CIJE (Current Index to Journals in Education)_____
Education Index_____
Other--Please Specify _____

11. **In the last two semesters, I have used the *Infotrac* system or other similar CD-ROM systems at the UTA Library, or elsewhere:**

Never____ 1-5 times____ 6-20 times____ More than 20 times____

12. **In the last two semesters, I have used LUIS (UTA's Online Computer Catalog):**

Never____ 1-5 times____ 6-20 times____ More than 20 times____

13. **In the last two semesters, I have used UTA Libraries for study:**

Never____ 1-5 times____ 6-20 times____ More than 20 times____

14. **In the last two semesters, I have used UTA Libraries to read course reserve materials:**

Never____ 1-5 times____ 6-20 times____ More than 20 times____

15. **In the last two semesters, I have used UTA Libraries to obtain reference assistance from a librarian:**

Never____ 1-5 times____ 6-20 times____ More than 20 times____

16. **In the last two semesters, I have used UTA Libraries to locate books:**

Never____ 1-5 times____ 6-20 times____ More than 20 times____

17. In the last two semesters, I have used UTA Libraries to locate periodicals/magazines:

Never____ 1-5 times____ 6-20 times____ More than 20 times____

B. SEARCHING *CIJE CD450*

Following the search procedures given to you and on the basis of those instructions, you have supplied the librarian with *CIJE CD450* printouts of relevant article citations and call numbers for the journals in which those articles appear.

18. Do you agree that you found enough citations in *CIJE CD450* to satisfy the assignment requirements?

Strongly Agree____ Agree____ Disagree____ Strongly Disagree____

a. Would more time have helped?

Yes_____ No_____

b. Would more instructions have helped? Yes_____ No_____

Comments _____

_____

19. Did you find the *CIJE CD450* CD-ROM database index to articles

Very easy to use_____ Easy to use_____

Somewhat difficult to use_____ Very difficult to use_____

C. SEARCHING *UTA CIJE ON-LINE ARTICLES INDEX*

Following the search procedures given to you and on the basis of those instructions, you have supplied the librarian with printouts of relevant article citations.

20. Do you agree that you found enough citations in the *UTA CIJE On-line Articles Index* to satisfy the assignment requirements?

Strongly Agree____ Agree____ Disagree____ Strongly Disagree____

a. Would more time have helped? Yes____ No____

b. Would more instruction have helped? Yes____ No____

Comments: _____

_____

21. **Did you find the *UTA CIJE On-line Articles Index***

Very easy to use_____ Easy to use_____

Somewhat difficult to use_____ Very difficult to use_____

D. SEARCHING PAPER *CIJE*

Following the search procedures given to you and on the basis of those instructions, you have supplied the librarian with photocopied lists of relevant article citations and call numbers to the journals in which they are found.

22. **Do you agree that you found enough citations in the Paper *CIJE*?**

Strongly Agree____ Agree____ Disagree____ Strongly Disagree____

a. Would more time have helped? Yes____ No____

b. Would more instruction have helped? Yes____ No____

Comments:_____

_____

23. **Did you find the Paper *CIJE***

Very easy to use____ Easy to use____

Somewhat difficult to use____ Very Difficult to use____

E. COMPARISON OF *CIJE CD450, UTA CIJE ON-LINE ARTICLES INDEX,* and Paper *CIJE*

24. **Now that you have searched *CIJE, UTA CIJE On-line Articles Index,* and Paper *CIJE* for this searching assignment, which system do you feel**

a. Was easier to use (rank order 1=easiest to use, 2=next, 3=least)?
***UTA CIJE On-line Articles Index*_____**
***CIJE CD450*_____**
Paper *CIJE*_____

b. Gave the best results (rank order 1=best results, 2=next, 3=least)?
***UTA CIJE On-line Articles Index*_____**
***CIJE CD450*_____**
Paper *CIJE*_____

25. How would you describe the process of looking up and finding call numbers for periodicals required when you were using *CIJE CD450* and Paper *CIJE*?

Easy to find_____ Somewhat easy to find_____

Somewhat difficult to find_____ Very difficult to find_____

26. How would you describe the process of finding call numbers for periodicals using the *UTA CIJE On-line Articles Index*?

Easy to find_____ Somewhat easy to find_____

Somewhat difficult to find_____ Very difficult to find_____

PAPER CIJE, CIJE CD450, AND UTA CIJE ON-LINE SCORING SHEET

STUDY NUMBER_____

PAPER *CIJE*

TOTAL

27. For citations judged to be relevant:
    A. Number of correct Call #'s _____ [ ]
    B. Number of incorrect Call #'s _____ [ ]
    C. Number of Call #'s not looked up _____ [ ]
    D. Source periodical non-UTA _____ [ ]

28. For citations judged to be **somewhat** relevant:
    A. Number of correct Call #'s _____ [ ]
    B. Number of incorrect Call #'s _____ [ ]
    C. Number of Call #'s not looked up _____ [ ]
    D. Source periodical non-UTA _____ [ ]

29. For citations judged **not** to be relevant:
    A. Number of correct Call #'s _____ [ ]
    B. Number of incorrect Call #'s _____ [ ]
    C. Number of Call #'s not looked up _____ [ ]
    D. Source periodical non-UTA _____ [ ]

CIJE CD450

30. For citations judged to be relevant:
    A. Number of correct Call #'s _____ [ ]
    B. Number of incorrect Call #'s _____ [ ]
    C. Number of Call #'s not looked up _____ [ ]
    D. Source periodical non-UTA _____ [ ]

31. For citations judged to be **somewhat** relevant:
    A. Number of correct Call #'s _____ [ ]
    B. Number of incorrect Call #'s _____ [ ]
    C. Number of Call #'s not looked up _____ [ ]
    D. Source periodical non-UTA _____ [ ]

32. For citations judged **not** to be relevant:
    A. Number of correct Call #'s _____ [ ]
    B. Number of incorrect Call #'s _____ [ ]
    C. Number of Call #'s not looked up _____ [ ]
    D. Source periodical non-UTA _____ [ ]

UTA CIJE ON-LINE PERIODICALS INDEX

33. For citations judged to be relevant:
    A. Number of correct Call #'s _____ [ ]
    B. Number of incorrect Call #'s _____ [ ]
    C. Number of Call #'s not printed out _____ [ ]

34. For citations judged to be **somewhat** relevant:
    A. Number of correct Call #'s _____ [ ]
    B. Number of incorrect Call #'s _____ [ ]
    C. Number of Call #'s not printed out _____ [ ]

35. For citations judged **not** to be relevant:
    A. Number of correct Call #'s _____ [ ]
    B. Number of incorrect Call #'s _____ [ ]
    C. Number of Call #'s not printed out _____ [ ]

OMB Approval No. 0348-00

FEDERAL ASSISTANCE

2. APPLICANT'S APPLICATION IDENTIFIER	a. NUMBER	3. STATE APPLICATION IDENTIFIER (NOTE TO BE ASSIGNED BY STATE)	a. NUMBER
	b. DATE (Year month day) 19		b. DATE ASSIGNED (Year month day) 19

1. TYPE OF SUBMISSION (Mark appropriate box)
- ☐ NOTICE OF INTENT (OPTIONAL)
- ☐ PREAPPLICATION
- ☒ APPLICATION

Leave Blank

SECTION I—APPLICANT/RECIPIENT DATA

4. LEGAL APPLICANT/RECIPIENT
- a. Applicant Name: The University of Texas at Arlington
- b. Organization Unit: Library Administration
- c. Street/P.O. Box: P. O. Box 19497
- d. City: Arlington
- e. County: Tarrant
- f. State: Texas
- g. ZIP Code: 76019
- h. Contact Person (Name & Telephone No.): Dr. Charles Lowry (817) 273-3000

5. EMPLOYER IDENTIFICATION NUMBER (EIN): 1 756 00 0121 A1

6. PROGRAM (From CFDA)
- a. NUMBER: 8 4 . 1 1 9
- MULTIPLE ☐
- b. TITLE: College Library Technol Cooperation Grants Pro

7. TITLE OF APPLICANT'S PROJECT (Use section IV of this form to provide a summary description of the project.)
- — A. NETWORKING GRANT
- — B. COMBINATION GRANT
- — C. SERVICES TO INSTITUTIONS GRANT
- X D. RESEARCH AND DEMONSTRATION GRANT

8. TYPE OF APPLICANT/RECIPIENT
A—State; B—Special Purpose District; C—Subdivision Organization; D—County; E—City; F—Special District; G—Regional Commission Agency; H—Higher Education Institution; I—Indian Tribe; K—Other (Specify):
Enter appropriate letter: F

9. AREA OF PROJECT IMPACT (Names of cities, counties, states, etc.)

10. ESTIMATED NUMBER OF PERSONS BENEFITTING: N/A

11. TYPE OF ASSISTANCE
A—Basic Grant; B—Supplemental Grant; C—Loan; D—Insurance; E—Other
Enter appropriate letter(s): A

12. PROPOSED FUNDING

a. FEDERAL	$ $162,000 .00
b. APPLICANT	$113,924 .00
c. STATE	.00
d. LOCAL	.00
e. OTHER	.00
f. Total	$ 275,924 .00

13. CONGRESSIONAL DISTRICTS OF:
- a. APPLICANT
- b. PROJECT

15. PROJECT START DATE (Year month day): 19 89 10 1

16. PROJECT DURATION: Months

18. DATE DUE TO FEDERAL AGENCY (Year month day): 19 89 01 13

14. TYPE OF APPLICATION
A—New; B—Revised; C—Revision; D—Continuation; E—Augmentation
Enter appropriate letter:

17. TYPE OF CHANGE (For 14c or 14e)
A—Increase Dollars; B—Decrease Dollars; C—Increase Duration; D—Decrease Duration; E—Cancellation; F—Other (Specify): N/A
Enter appropriate letter(s):

19. FEDERAL AGENCY TO RECEIVE REQUEST: Department of Education, Office of Educational Research and Improvement

20. EXISTING FEDERAL GR IDENTIFICATION NUME: #R197D90028 N/A

a. ORGANIZATIONAL UNIT (IF APPROPRIATE): Application Control Center

b. ADMINISTRATIVE CONTACT (IF KNOWN)

c. ADDRESS: 400 Maryland Avenue, S.W. Washington, D.C. 20202-4725

21. REMARKS ADDED: ☐ Yes ☒ No

SECTION II—CERTIFICATION

22. THE APPLICANT CERTIFIES THAT: To the best of my knowledge and belief, data in the preapplication/application are true and correct, the document has been duly authorized by the governing body of the applicant and the applicant will comply with the attached assurances if the assistance is approved.

a. YES. THIS NOTICE OF INTENT/PREAPPLICATION/APPLICATION WAS MADE AVAILABLE TO THE STATE EXECUTIVE ORDER 12372 PROCESS FOR REVIEW ON: DATE January 13, 1989

b. NO. PROGRAM IS NOT COVERED BY E.O. 12372 ☐ OR PROGRAM HAS NOT BEEN SELECTED BY STATE FOR REVIEW ☐

23. CERTIFYING REPRESENTATIVE
- a. TYPED NAME AND TITLE: W. H. Nedderman, President
- b. SIGNATURE: W. H. Nedderman

SECTION III—FEDERAL AGENCY ACTION

24. APPLICATION RECEIVED (Year month day) 19

25. FEDERAL APPLICATION IDENTIFICATION NUMBER

26. FEDERAL GRANT IDENTIFICATION

27. ACTION TAKEN
- ☐ a. AWARDED
- ☐ b. REJECTED
- ☐ c. RETURNED FOR AMENDMENT
- ☐ d. RETURNED FOR E.O. 12372 SUBMISSION BY APPLICANT TO STATE
- ☐ e. DEFERRED
- ☐ f. WITHDRAWN

28. FUNDING

a. FEDERAL	$ .00
b. APPLICANT	.00
c. STATE	.00
d. LOCAL	.00
e. OTHER	.00
f. TOTAL	$ .00

29. ACTION DATE (Year month day) 19

30. STARTING DATE (Year month day) 19

31. CONTACT FOR ADDITIONAL INFORMATION (Name and telephone number)

32. ENDING DATE (Year month day) 19

33. REMARKS ADDED: ☐ Yes ☐ No

BEST COPY AVAILABLE

60

PART II - BUDGET INFORMATION
FY 89

____A. NETWORKING GRANT ____B. SERVICES TO INSTITUTIONS GRANT

____B. COMBINATION GRANT ____D. RESEARCH AND DEMONSTRATION GRANT

Section A - Budget By Categories

	FEDERAL	APPLICANT
1. Salary and Wages	$ 46,920	29,361
2. Fringe Benefits	12,904	8,074
3. Travel	-0-	7,500
4. Equipment	45,870	32,730
5. Supplies	4,500	-0-
6. Contractual Services	26,000	20,200
7. Other (itemize)		
8. Total Direct costs(lines 1 to 7 totaled	136,194	97,775
9. Total Indirect Costs	25,806	16,149
10. Total Project Costs (lines 8-9)	162,000	113,924

Section B - Estimate of Expenditures

1. Year One	$ 103,285	73,234
2. Year Two	58,715	40,690
3. Year Three		

Section C - Itemized Budget - see Instructions for Part II - Budget

Section D - Matching Contribution

An assurance that the matching requirement will be satisfied is required under section 779.10 of the program regulations. Please certify that:

If selected as a grantee, the applicant will expend, for the same purpose as the grant an amount not less than one-third the grant during the period for which the grant is sought; and make that expenditure from funds received under Title II og the Higher Education Act.

Signed _____ Date September 21, 1989

Title President

PART II

SECTION C. - ITEMIZED BUDGET

Salaries and Wages: Each of the elements of this "Itemized Budget" is justified in the "Application Narratives."

YEAR I (1989-90)

Name	% Time	Cost	Federal	Applicant
Charles Lowry	5%	$ 3,638	$ 3,638	
Shirley Sheets	10%	4,708	4,708	
Stephen Stoan	10%	4,200		4,200
Bob Samson	35%	12,339	12,339	
Mary D. Wilson	7%	2,206	2,206	
System Programmer (TBA)	30%	7,776		7,776
Kay Punneo (Admin. Secty)	5%	959		959
Carol Davis (Sr. Secty)	5%	815		815
Diana White (Clk. Typist)	5%	569	569	
Total Salaries and Wages		37,210	23,460	13,750
Fringe Benefits (27.5%)		10,233	6,452	3,781

YEAR II (1990-91)

The same individuals will be involved in the second year of the grant based on a 5% average salary increase.

	Cost	Federal	Applicant
Total Salaries $37,210 1989-90 x 105%	39,071	23,460	15,611
Fringe Benefits (27.5%)	10,745	6,452	4,293

Travel: For Dr. Charles B. Lowry and Dr. Stephen K. Stoan attendant to presentation of project progress and results, and for the Advisory Group Travel.

	Cost	Federal	Applicant
Year I (1989-90)	$3,500	-0-	$3,500
Year II (1990-91)	4,000	-0-	4,000

Equipment:

	Cost	Federal	Applicant
Year I (1989-90)			
IBM 3380 Disk Drives (2 at (10,000)	$20,000	$ 3,270	$16,730
PS-2 IBM Microcomputer documentation and peripherals	11,000	11,000	-0-
Ink-Jet Terminal printers & hardware (20 at $500)	10,000	10,000	-0-
IAC "Trade & Industry" Data Backfile	16,000	-0-	16,000
IAC "Trade & Industry" Current Datafile	9,000	9,000	-0-
ERIC/CIJE Data Backfile	1,800	1,800	
ERIC/CIJE Current Data File	900	900	
	68,700	35,970	32,730
Year II (1990-91)			
IAC "Trade and Industry" Current Datafile	$9,000	$9,000	-0-
ERIC/CIJE Current Datafile	900	900	-0-
	9,900	9,900	-0-

Supplies:

	Cost	Federal	Applicant
Printer Paper	$3,000	$3,000	-0-
Ink Jet printer heads	1,500	1,500	-0-
	4,500	4,500	-0-

Contractual Services:

	Cost	Federal	Applicant
Year I			
AMIGOS Contract Services Programming and Project Management	$20,000	$20,000	-0-
AMIGOS Tape Processing	12,000	-0-	12,000
Year II			
AMIGOS Tape processing	8,200	-0-	8,200
UTA Media Services video-taping and editing	1,000	1,000	-0-
Consulting Services for Dr. Bernie Schlesinger	5,000	5,000	-0-
	46,200	26,000	20,200

Direct Costs:

	Cost	Federal	Applicant
Year I	$156,053	$90,382	$65,671
Year II	77,916	45,812	32,104
TOTAL	233,969	136,194	97,775

Indirect Costs:

	Cost	Federal	Applicant
Year I	$20,466	$12,903	$7,563
Year II	21,489	12,903	8,586
TOTAL	41,955	25,806	16,149

Total Project Costs:

Cost	Federal	Applicant
$275,924	$162,000	$113,924

Harold Whitt ✓
Roseann Edgett

The University of Texas at Arlington
The University of Texas at Austin
The University of Texas at Dallas
The University of Texas at El Paso
The University of Texas of the Permian Basin
The University of Texas at San Antonio
The University of Texas at Tyler

The University of Texas Southwestern Medical Center at Dallas
The University of Texas Medical Branch at Galveston
The University of Texas Health Science Center at Houston
The University of Texas System Cancer Center
The University of Texas Health Science Center at San Antonio
The University of Texas Health Center at Tyler
The University of Texas Institute of Texan Cultures at San Antonio

THE UNIVERSITY OF TEXAS SYSTEM
201 WEST SEVENTH STREET, AUSTIN, TEXAS 78701

October 20, 1988

Office of the Comptroller

Mr. Kenneth R. Gibbons
Director, Division of Cost Allocation
Regional Administrative Support Center
Department of Health and Human Services
1200 Main Tower Building
Dallas, Texas 75202

Dear Mr. Gibbons:

As requested in your letters of October 28 and October 30, herewith are the executed indirect cost Negotiation Agreements for the following University of Texas Components:

The University of Texas at Arlington
The University of Texas at El Paso
The University of Texas of the Permian Basin
The University of Texas at San Antonio
The University of Texas at Tyler
The University of Texas Health Center at Tyler

By copy of this letter, copies of these agreements are being forwarded to the business officers of each of the above named institutions.

Sincerely,

T. M. Grady
Comptroller

df
Enclosures

c Mr. Dudley Wetsel, Vice President for Business Affairs ✓
The University of Texas at Arlington
Mr. Glenn Williams, Vice President for Administration and Finance
The University of Texas at El Paso
Mr. Bruce Revell, Chief Business Officer
The University of Texas of the Permian Basin
Mr. Dan Williams, Vice President for Business Affairs
The University of Texas at San Antonio
Mr. Ron Wall, Chief Fiscal Officer
The University of Texas at Tyler
Mr. David Thurman, Associate Director for Business Affairs
The University of Texas Health Center at Tyler

RATE AGREEMENT #1756000121A1

COLLEGES AND UNIVERSITIES

INSTITUTION: University of Texas at Arlington
Arlington, TX

DATE: September 30, 1988

FILING REF: The preceding Agreement was dated September 30, 1987

The rates approved in this Agreement are for use on grants, contracts and other agreements with the Federal Government, subject to the conditions in Section II.

SECTION I: RATES

Type	Effective Period From	To	Rate	Locations	Applicable To
Predetermined	9/1/88	8/31/90	55.0%	On Campus	All Programs
Predetermined	9/1/88	8/31/90	16.0%	Off Campus	All Programs
Provisional	9/1/90	8/31/91	55.0%	On Campus	All Programs
Provisional	9/1/90	8/31/91	16.0%	Off Campus	All Programs

Base: Direct Salaries and Wages.

Treatment of Fringe Benefits: Fringe benefits applicable to direct salaries and wages are treated as direct costs. (See Section I, Fringe Benefits)

IPS 02681

RATE AGREEMENT
COLLEGES AND UNIVERSITIES

INSTITUTION: University of Texas at Arlington
Arlington, TX

DATE: September 30, 1988

FILING REF: The preceding Agreement was dated September 30, 1987

The rates approved in this Agreement are for use on grants, contracts and other agreements with the Federal Government, subject to the conditions in Section II.

SECTION I: FRINGE BENEFIT RATES

Type	Effective Period From	To	Rate	Locations	Applicable To
Predetermined	9/1/88	8/31/90	1.0%	All	All Programs
Provisional	9/1/90	8/31/91	1.0%	All	All Programs

Base: Direct salaries and wages excluding salaries and wages of faculty with a nine month appointment..

NOTE: This organization uses this fringe benefit rate for budgeting and charging termination costs for accried vacation and sick leave.

The cost of vacation, holiday, sick leave and other paid absences are included in salaries and wages and are charged to grants and contracts as part of the normal charge for salaries and wages. Separate charges for the costs of these absences are not made.

This organization uses a fringe benefit rate for estimating direct fringe benefit costs in grant applications and contract proposals. For final reporting, the cost of each benefit is specifically identified to each employee and charged individually. The current rate used for estimating purposes is 26.5 percent of direct salaries and wages for employees eligible for all fringe benefits, and 16.0 percent of direct salaries and wages for employees not eligible for group insurance and retirement. The following fringe benefits are included in the fringe benefit rate.

FICA
Workers' Compensation
Unemployment Compensation
Group Life and Health Insurance
Retirement

SECTION II: General

A. LIMITATIONS: The rates in this Agreement are subject to any statutory or administrative limitations and apply to a given grant, contract, or other agreement only to the extent that funds are available. Acceptance of the rates is subject to the following conditions: (1) Only costs incurred by the organization were included in its indirect cost pool as finally accepted; such costs are legal obligations of the organization and are allowable under the governing cost principles. (2) The same costs that have been treated as indirect costs are not claimed as direct costs. (3) Similar types of costs have been accorded consistent accounting treatment. (4) The inforation provided by the organization which was used to establish the rates is not later found to be materially incomplete or inaccurate.

B. ACCOUNTING CHANGES: If a fixed or predetermined rate is contained in this Agreement, it is based on the accounting system in effect at the time the agreement was negotiated. Changes to the method of accounting for costs which affect the amount of reimbursement resulting from the use of this Agreement require prior approval of the authorized representative of the cognizant agency. Such changes include, but are not limited to, changes in the charging of a particular type of cost from indirect to direct. Failure to obtain such approval may result in cost disallowances.

C. FIXED RATES: If a fixed rate is contained in this Agreement, it is based on an estimate of the costs for the period covered by the rate. When the actual costs for this period are determined, an adjustment will be made in a subsequent Agreement to compensate for the difference between the costs used to establish the fixed rate and actual costs.

D. USE BY OTHER FEDERAL AGENCIES: The rates in this Agreement were approved in accordance with the authority in Office of Management and Budget Circular A-88, and should be applied to grants, contracts and other agreements covered by Office of Management and Budget Circular A-21, subject to any limitations in A above. The organization may provide copies of this Agreement to other Federal Agencies to give them early notification of the Agreement.

E. SPECIAL REMARKS:

1. Long distance telephone charges are treated as direct costs at this institution.

2. Postage and xerox expenses are treated as direct costs.

3. Costs of operation and maintenance of plant, e.g., utilities, minor repairs, janitorial services, etc., are treated as indirect costs for on campus activities only.

4. Off campus activities are considered "Off Campus" when the programs and projects are performed in facilities not owned or maintained by the College. Programs and projects performed partially off campus are apportioned between their on campus and off campus component.

ACCEPTANCE

BY THE ORGANIZATION The University of Texas at Arlington

T. M. Grady /s/

Name T. M. Grady, Comptroller
The University of Texas System
Title

10/20/88
Date

BY THE COGNIZANT AGENCY ON BEHALF OF THE FEDERAL GOVERNMENT

Department of Health and Human Services
Agency

Kenneth R. Gibbons /s

Kenneth R. Gibbons
Name
Dir. Division of Cost Allocation
Title
Date: September 30, 1988
HHS Representative: Gene Reeves
Telephone Commercial: (214) 767-3261
FTS: 729-3261

IPS 0268E

Certification Regarding
Debarment, Suspension, and Other Responsibility Matters
Primary Covered Transactions

This certification is required by the regulations implementing Executive Order 12549, Debarment and Suspension, 34 CFR Part 85, Section 85.510, Participants' responsibilities. The regulations were published as Part VII of the May 26, 1988 Federal Register (pages 19160-19211). Copies of the regulations may be obtained by contacting the U.S. Department of Education, Grants and Contracts Service, 400 Maryland Avenue, S.W. (Room 3633 GSA Regional Office Building No. 3), Washington, D.C. 20202, telephone (202) 732-2505.

(BEFORE COMPLETING CERTIFICATION, READ INSTRUCTIONS ON REVERSE)

(1) The prospective primary participant certifies to the best of its knowledge and belief, that it and its principals:

(a) Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from covered transactions by any Federal department or agency;

(b) Have not within a three-year period preceding this proposal been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State or local) transaction or contract under a public transaction; violation of Federal or State antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property;

(c) Are not presently indicted for or otherwise criminally or civilly charged by a governmental entity (Federal, State or local) with commission of any of the offenses enumerated in paragraph(1)(b) of this certification; and

(d) Have not within a three-year period preceding this application/proposal had one or more public transactions (Federal, State or local) terminated for cause or default.

(2) Where the prospective primary participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

W. H. Nedderman, President

Name And Title Of Authorized Representative

W H Nedderman

Signature

January 11, 1989

Date

ED Form GCS-008, 6/88

Certification Regarding
Debarment, Suspension, Ineligibility and Voluntary Exclusion
Lower Tier Covered Transactions

This certification is required by the regulations implementing Executive Order 12549, Debarment and Suspension, 34 CFR Part 85, Section 85.510, Participants' responsibilities. The regulations were published as Part VII of the May 26, 1988 Federal Register (pages 19160-19211). Copies of the regulations may be obtained by contacting the person to which this proposal is submitted.

(BEFORE COMPLETING CERTIFICATION, READ INSTRUCTIONS ON REVERSE)

(1) The prospective lower tier participant certifies, by submission of this proposal, that neither it nor its principals are presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in this transaction by any Federal department or agency.

(2) Where the prospective lower tier participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

W. H. Nedderman, President

Name And Title Of Authorized Representative

W H Nedderman

Signature

January 11, 1989

Date

ED Form GCS-009, 6/88

ABSTRACT AND COVER PAGE

a) The University of Texas at Arlington Libraries
Library Administration
Post Office Box 19497
Arlington, Texas 76019
Phone (817) 273-3000; Fax (817) 273-3392

b) "Online Public Access Catalog Enhancement Project, A Research and Demonstration Grant Proposal—The University of Texas at Arlington Libraries"

c) Charles B. Lowry ,Ph.D., Principal Investigator
Director of Libraries

Robert Samson, Project Director
Assistant Director for Automation Services

d) Funding Level Requested—Federal Share $189,235, Applicant Share $95,848, and Total $285,083

e) Project beginning September, 1989 and ending August, 1991

f) The purpose of this project is to demonstrate the feasibility of providing on-line periodical indexing to library holdings of the UTA Libraries' through the on-line public access catalog (OPAC) of the NOTIS library system. This project will demonstrate several innovative approaches in utilizing technology for library services which distinguish it from other apparently similar projects:

- o extracting journal indexing records to UTA holdings from commercially produced machine-readable bibliographic data files, enhancing the records by adding call numbers and journal holdings of UTA Libraries;
- o extracting periodical holdings information from the same data files which represent holdings in the collections of other local area academic research libraries which have resource sharing agreements with UTA; and
- o re-formatting these extracted indexing records into "pseudo-MARC" files which can be loaded into the NOTIS OPAC and used by patrons through the familiar command/search structure they have already experienced.

PART III: APPLICATION NARRATIVE

ONLINE PUBLIC ACCESS CATALOG ENHANCEMENT PROJECT

A RESEARCH AND DEMONSTRATION GRANT PROPOSAL

THE UNIVERSITY OF TEXAS AT ARLINGTON LIBRARIES

GENERAL SELECTION CRITERIA

Project Description:

The purpose of this project is to demonstrate the feasibility of providing on-line periodical indexing to library holdings of the UTA Libraries' through the on-line public access catalog (OPAC) of the NOTIS library system. This project will demonstrate several innovative approaches in utilizing technology for library services which distinguish it from other apparently similar projects. These applications include:

- o extracting journal indexing records to UTA holdings from commercially produced machine-readable bibliographic data files, enhancing the records by adding call numbers and journal holdings of UTA Libraries;

- o extracting periodical holdings information from the same data files which represent holdings in the collections of other local area academic research libraries which have resource sharing agreements with UTA; and

- o re-formatting these extracted indexing records into "pseudo-MARC" files which can be loaded into the NOTIS OPAC and used by patrons

through the familiar command/search structure they have already experienced.

While UTA Libraries can accomplish most of the tasks required to implement this project, some data processing work will be accomplished by contract with AMIGOS Bibliographic Council, of which UTA is a charter member. It is UTA's experience that AMIGOS has the necessary capabilities for these tasks (refer to Appendix I for discussion of AMIGOS personnel and technological capabilities). For instance, AMIGOS provided the custom database processing necessary for UTA to install its first automated system in 1980, the CLSI circulation system and online catalog. In 1987-88 the two cooperated in major database preparation, and the retrospective conversion of all titles held by UTA, the creation of copy and holdings records for monographs and serials, and the necessary tape processing to provide the correct OCLC/MARC format load over 365,000 records into the NOTIS Integrated System which UTA has installed. This was a major undertaking which involved the personnel of both institutions in a cooperative venture with many of the same tasks described in this grant proposal. Moreover, this experience points the way to an effective management plan for the grant.

Plan of Operation:

The Director of UTA Libraries will be the Principal Investigator and will have overall responsibility for assuring that the grant is properly executed. The Assistant Director for Automation will be the UTA Project Coordinator and will have responsibility for oversight of necessary modifications to the NOTIS System, in which he will be assisted by the Systems Programmer I. In

addition, the Assistant Director for Automation will be responsible for coordinating with AMIGOS all database design and processing. The UTA Assistant Director for Technical Services and the Head of Bibliographic Control will both assist in the necessary "mapping" of the database format into the proper fields of the OCLC/MARC format for loading into NOTIS. The Assistant Director for Public Services will work with the outside consultant to develop the pre-test to be applied to patrons using the IAC database in CD-ROM format and the post-test for patron use of the enhanced OPAC containing the processed IAC and CIJE databases. These key personnel will be aided by the mid-level managers of UTA's two branch libraries and Central Library reference in the development, installation, and assessment of the electronic periodicals indexing. The qualifications of the key personnel are described in a later section and their CV's are included in Appendix II.

It is an advantage that UTA personnel have worked together before on similar automation projects and also with AMIGOS which will contract certain data processing tasks. Geographic proximity allows for regular meetings of groups and individuals to make sure that the grant activity is on track. Such meetings will be held on a regular monthly basis. Frequent phone contact will be used to resolve problems as they arise whenever possible. In addition, in the first year an advisory group on the enhanced OPAC will be used as a sounding board to assure that the development of the concept is useful to as many libraries as possible. Letters of individuals who will serve on the Advisory Group are in Appendix III.

Year-one, Plan of Operation:

This prose description of the two years of grant activity is charted on a "Gantt Timetable" (Appendix IV). The timetable illustrates the overlapping activities which must be accomplished to move the project toward a timely and successful conclusion.

While there has been research into the question of user satisfaction and behavior with respect to library online public access catalogs, to date, little has been done to assess similar user attitudes towards electronic indexing systems based on online searching or optical disk formats, particularly as these relate to print indexes. The information we do have tends to be anecdotal and supports the observation that users are satisfied with electronic indexing which is perceived to be more powerful, faster, and more authoritative than print indexes. These perceptions will be tested in the grant project by developing a pretest comparing relative user success with online searching, IAC's CD-ROM, and print indexes.

The pretest will be designed to determine not just user attitudes, but the their relative success in identifying appropriate bibliographic citations with all three formats and their success in obtaining copies of the articles deemed appropriate. Administration of this test will provide a baseline for comparison using the enhanced OPAC at UTA. The pretest instruments will be developed in the Fall Semester and patron groups to be tested will be identified. In the Spring Semester tests will be applied and results compiled. The design of the user post-test for the enhanced OPAC will be developed during the summer months of 1990 and administered in the Fall 1990

and Spring 1991 semesters.

During the Fall Semester, UTA Libraries and the UTA Computation Center will prepare the NOTIS System for the database load. Two IBM 3380 disk drives with a total capacity of five gigabytes storage will be dedicated to the first database load. This storage capacity has already been acquired at a cost of $15,000 in advance of the project. An equal amount of storage will be purchased at the end of the first year of the grant period to double the available storage capacity to ten gigabytes. In addition, UTA will begin necessary programming to prepare the NOTIS System for the database load. The main objective will be to develop a software artifact which will allow the patron to move easily from the OPAC to the periodical index database. This will be a menu-driven system and will provide appropriate help screens so that the patron is aided in the process of identifying periodical materials in the indexing database and monograph materials in the OPAC. The NOTIS System is MARC-based and has a highly flexible database structure which will allow for a series of experiments in varying configurations of the periodical index database. Additional microcomputer equipment will be needed to facilitate this work by the Assistant Director for Automation and the Systems Programmer. This equipment will be configured in the UTA Libraries LAN as well as the campus network.

Information Access Corporation of California is a long-established vendor of periodical indexing with a strong record in business and general periodical resources. IAC has agreed (see attached letter) to provide access to retrospective back files of its "Trade and Industry" Database, costing $16,000

and representing over 1,536,000 periodical index records covering the years 1982-1988. In addition, a current subscription to the updates of this database will be acquired at $9,000/annum for the period of the grant, which includes over 300,000 additional records per year. The ERIC (Educational Resources Information Clearinghouse) Database "Current Index to Journals and Education" (CIJE) is also available in machine-readable form. The 650,000 record back file will be purchased for $1,800. A current subscription will be established at a cost of $900/annum to acquire the additional 32,000 records a year for this database. ERIC is an independent government agency which has been involved in indexing of social sciences literature related primarily to education and social psychology for over twenty years.

UTA will initiate the "mapping" process for the IAC Database (Sept.-Dec., 1989). This step involves a detailed examination of both database formats to determine the "field" structure into which various data elements of the indexing have been placed. The next step is to plan the "mapping" of the database fields into the appropriate OCLC/MARC fields. This is a complex undertaking, particularly since the effectiveness of NOTIS indexing is dependent upon it. However, once this step is completed it will not have to be repeated again and can be replicated easily for other libraries. In addition, UTA and will "match" UTA periodical titles to those represented in the IAC Database. The development of the "matching key" will be vital to the process of extracting UTA holdings from indexing in the IAC and CIJE databases and will have to be updated as UTA establishes new periodical subscriptions or cancels old ones.

AMIGOS will undertake the programming necessary for the database processing

activity (September, 1989 - December 1990). At a minimum, this work will include software to match the UTA index key to the IAC Database and extract the appropriate periodical indexing records. These records will be enhanced by the addition of call number and location information specific to UTA. Duplicate records will be eliminated and other problems will be reconciled such as title changes, excessive record length, and unreadable records. This programming task is similar to that which is normally undertaken in the custom database preparation AMIGOS conducts for loading a library OPAC's. Processing the database will be completed by the end of February, 1990. Test loads and evaluation will be conducted in March and April. When the database is stabilized, a test load of an update tape will be conducted to ensure that additions to the periodical index database merge properly.

Once it is demonstrated that the IAC Database can be effectively mounted, UTA Libraries will undertake to process the CIJE Database for loading (April-June, 1990). The "mapping" and programming for database processing will be repeated for CIJE and the database loaded by August, 1990. Thus, by the end of the first year of the grant period, two databases will be loaded and ready for release to general patron access in the Fall Semester of 1990. Thereafter, updates to both IAC and CIJE databases will be loaded regularly through the end of the project.

The Advisory Group will be advised regularly on the project's progress and invited to the UT Campus for a two-day briefing in August. In addition, they will have an opportunity to examine the project results, using the indexing systems. They will also be asked to evaluate the utility of the systems and

provide advice on further project development for the beginning of the second year.

Year-Two, Plan of Operation:

By September, 1990, UTA Libraries will be in a position to undertake a full test of the system. As mentioned above, the Fall Semester will include a major evaluation of user attitudes and success. This evaluation will provide important information to compare with data gathered in the first year of the study, and should answer substantial questions concerning the effect of enhanced OPAC capacity on patron needs as compared to traditional print indexing, online searching, or CD-ROM systems. As part of this test of patron needs, 20 OPAC terminals will be equipped with "ink-jet" printers to provide patrons with hard copy results of their searches, UTA experience with a five terminal network of IAC's "Infotrac" system has demonstrated the printers are among the most attractive features for patrons. The year's activity will also include the regular loading of updates to the IAC "Trade and Industry" Database and the ERIC CIJE database. These database loads will offer an opportunity for UTA and AMIGOS to develop mechanisms for dealing with the changes in library serial collections caused by cancellations of subscriptions, title changes in serials and the addition of new serials to library subscription list. This is an extremely important part of the grant study, because it will provide an opportunity to deal with some of the more ticklish problems of adding new records to a serial index database.

UTA will also initiate a broader application of the use of the databases. The plan for database title coverage the first year includes only titles held by

the UTA Libraries. The second year component of the study will test the feasibility of expanding such a database to exploit the periodical resources of other local libraries with which UTA cooperates in the Association for Higher Education Consortium. The Consortium is composed of seventeen academic and public libraries in the North Central Texas area and six of these cooperate closely in the Research Libraries Interest Group composed of UTA, University of Texas at Dallas, Texas Christian University, Southern Methodist University, Baylor University, The University of North Texas, and Texas Women's University. The purpose of this test will be to enrich the database by adding title and location information from the other six RLIG libraries to the UTA periodical index database. The result will be a mixed database indicating call number and location for journals to which UTA subscribes. In addition, locations of titles held by the other libraries but not subscribed to by UTA will be added to the database. In this way, the consortium borrowing arrangements, which include special inter-library loan arrangements, a shuttle service, telefacsimile, and AHE borrowing privileges among the institutions, can be better exploited by local UTA patrons.

UTA will prepare the "match key" to RLIG holdings to be extracted from the IAC and CIJE databases (Aug.-Dec., 1990). Additional NOTIS programming will be needed to accommodate the loading of RLIG periodical indexing. AMIGOS will extract the RLIG periodical index database for UTA, which will be loaded in December and tested in the Spring 1991 semester. In the summer of 1991, the UTA Libraries will publish the results of the first two years of the study. In addition, the Advisory Group will have an additional meeting at UTA.

Subsequent to the grant period AMIGOS will be able to pursue making this new service available to the library community as a whole. It will test the product within AMIGOS and investigate marketing outside the AMIGOS region with OCLC and/or regional OCLC affiliates. It will also approach Research Libraries Group, Inc., UTLAS, and the Western Library Network to determine if there is interest in providing this product to their member libraries. In addition, AMIGOS may identify and acquire rights to additional databases to provide indexing to other disciplines. The initial efforts will be made in the area of Nursing Index, H. W. Wilson, Inc. Indexes, Public Affairs Information Services, and Psychological Abstracts.

Key Personnel:

A fairly large number of UTA staff will be involved in the work under the project grant, but only the key personnel are listed here and only their time will be "charged" to the grant. The curriculum vitae of each of these key personnel are appended to this application.

Dr. Charles B. Lowry, Director of Libraries since 1985, will serve as the principal investigator for the project. He will spend approximately 5% of his time on the project grant. He has broad experience in academic libraries having served also as Head of Reference at UNCC, Director of the Elon College Library and Learning Resource Center, and Director of Libraries at the University of South Alabama. He has been involved in library automation development at each of these institutions and has published and presented papers on library networking and library technology for professional journals and associations. He has served on the Board of the Directors of SOLINET, a

Regional OCLC Affiliate, as an AMIGOS Representative to the OCLC Users' Council and has participated in state and local networking in North Carolina, Alabama, and Texas. He is currently the Chairman of the Council of Library Directors of the Association for Higher Education.

Mr. Robert Samson, Assistant Director for Automation at UTA Libraries for five years, has significant systems experience and has been involved in the maintenance of the CLSI Library System, the installation and maintenance of the NOTIS System, and the development of a local area network for UTA Libraries. Because of the effectiveness of his direction of library automation, NOTIS, Inc. has called on UTA to be a test site for the development of version 4.5 of the NOTIS software, the most extensive upgrade in its history and in the testing of the "Generic Transfer Overlay," a new hardware/software system designed to download records from the OCLC Database into a local NOTIS System. He will spend approximately 35% of his time for the two years of the project.

Systems Programmer (to be named) is a new position being added to UTA Libraries to provide additional support for the continuation of the NOTIS System and the development of new NOTIS modifications. This individual will work in support of Mr. Samson 30% of the position time to the project.

Mrs. Shirley Sheets has been Assistant Director for Technical Services at UTA for eleven years. Her prior experience has been as cataloger at the University of North Texas, Denton, and Texas Wesleyan University, Fort Worth, serving for ten years as head cataloger at UTA. She had primary

responsibility for the formatting of records in the IBM 357 Circulating System in 1967/68 and reformatting OCLC records to CLSI Expanded Title format in 1982/83. She was liaison with Theresa Jennings, AMIGOS programmer, on the latter project. She has also been active in the installation and implementation of NOTIS. Approximately 10% of her time will be devoted to this project.

Dr. Stephen K. Stoan, Assistant Director for Public Services in the UTA Libraries since June, 1987, will devote approximately 5% of his time to the project. He has many years' experience in public services in an academic library setting, including experience with automation. As Head of Reference at Wichita State University during the time that the NOTIS system was being installed, he was active in devising user education programs.

Ms. Mary Dabney Wilson, Head of Bibliographic Control at UTA since January 1988, will spend approximately 7% of her time on the project. Her background includes seven years cataloging experience at the University of California at Los Angeles, seven years teaching cataloging at the Graduate School of Library and Information Science, University of Texas at Austin, and two additional years at UCLA organizing and supervising the name authority component of its retrospective conversion project. She has published and presented papers in the area of authority control in the online environment.

Dr. Bernie Schlesinger, who will serve as the key consultant to the project, is a member of the Graduate School of Library and information Science faculty at Texas Woman's University. In addition to the MLS, he holds an interdisciplinary M.A. and Ph.D. in math, physics and chemistry. He served

eight years as the Head of Indexing at Chemical Abstracts Service. He has been Dean or Associate Dean at three library schools and has taught information science, special librarianship and collection development for twenty years. Three of his five books have been devoted to collection development and his ninety articles have ranged across a broad array of vital topics in librarianship and information science. He has conducted workshops on the phases of research methodology, collection development and planning and management. Dr. Schlesinger has served as a consultant to numerous corporations, library schools libraries, and the Department of the Navy. In particular, he has consulted on projects related to indexing, records organization, and library automation to determine the extent to which automation has successfully reached its goals based on user behaviors and user satisfaction.

Other Institutional Resources:

The University of Texas at Arlington will bring to this grant project significant experience in library automation. During the past fifteen years it has installed and managed an IBM System 370 Circulation System, The CLSI Circulation and OPAC Systems, NOTIS, and a local area network within the Library which is compatible with the Campus Ethernet. Continued success and work with varied automation systems has created a staff that is deep in experience and capable of effectively conducting the project. UTA Libraries have a significant collection of over 670,000 volumes including 76,071 serial subscriptions, and a USGPO Collection of over 1,000,000 items. The annual budget exceeds $5,000,000, including over $2,000,000 committed to the acquisition of materials. The staff numbers 108 and works in the Central

Library, the Art and Architecture Branch Library, and the Science and Technology Branch Library. The NOTIS System is mounted on an IBM 4381 System 23 which is part of the campus network, and Library has 45 public terminals and 56 terminals for staff use. At the present time, four IBM 3380 disk drives with a total storage of ten gigabytes are dedicated to library operations, two purchased specifically for this project. UTA Libraries have maintained a consistent pattern of exploiting new library technology, including online searching, optical media indexing, and the acquisition and use of numeric databases (CRSP, COMPUSTAT, etc.). Staff have a broad experience in microcomputing applications and are knowledgeable in the numerous applications of library technology to libraries for the better provision of information services to students and faculty. UTA is the second largest University of Texas System institution with 23,000 students, 900 faculty, and doctoral programs in over 40 fields. The University consistently awards the largest number of graduate and undergraduate degrees in the sciences, business, and engineering in the Dallas-Fort Worth "Metroplex." Graduate programs have maintained stiff standards for admission and students graduating from them are eagerly sought after by business and industry. External funding for research has more than tripled in the last six years, reaching $9,106,000 in FY '89.

Evaluation Plan:

The evaluation plan is broken up into several components. However, it should be noted that successful implementation of the tasks outlined in the two-year plan above will in some measure imply success in the project grant. Nevertheless, several other types of evaluation will be undertaken:

- As part of the evaluation phase of the project, UTA staff will formally assess the performance of AMIGOS personnel in designing, developing, and delivering the product. They will assess the ability of AMIGOS to deliver the pilot product in terms of quality and timeliness of delivery. The consultant will conduct interviews with UTA staff to determine the level and quality of this performance.

- The two-year plan calls for a significant pre and post test of patron use. The coordination of the evaluation at UTA will be the responsibility of the Assistant Director for Public Services. The development of the technique and instruments for assessing user behaviors and satisfaction and effectiveness of the system will be under the guidance of an external consultant who is an expert in the area. This part of the evaluation plan has as its objective first to determine user success in different periodical indexing media, including print, online searching, CD-ROM, and, finally, the enhanced OPAC. It will be important to distinguish between actual user success and perceived satisfaction by library patrons with the results of their work in these three forms of periodical indexing.

- The Advisory Group will be constituted to perform two tasks. They will be responsible for providing guidance and recommendation in the planning of the project and its execution. They will also be asked to provide an evaluation of the relative success of the project. This evaluation will come in the form of a detailed questionnaire and a narrative critique.

Individuals who have consented to serve on the Advisory Group are included in Appendix I.I.

SPECIAL PROGRAM CRITERIA

"The applicant proposes an innovative approach in utilizing technology for library services."

In response to this criteria, UTA Libraries will demonstrate several departures in approach. Whereas many library automation activities, particularly in a networking environment, are limited to sharing resources among libraries, this project will emphasize both fully exploiting local resources in the individual library as well as expanding local resource sharing. This objective is highly desirable, because it will improve the ability of the typical patron to use those resources most readily accessible before calling on network and consortia arrangements.

During the last fifteen years libraries and library vendors have developed powerful automation systems to carry out various library functions formerly dependent on labor intensive manual filing systems, the most well known being the venerable card catalog. These systems have been developed on a wide variety of computer equipment, but their principal foundation is the use and manipulation of the MARC record, which provides the common element in library automation and the basis for the sharing of library resources nationally. As libraries have installed local systems, we have realized that automation will provide the "means" to important innovations in information access and

resource sharing that go well beyond the original "ends" for which systems were designed in two significant ways.

First, the interconnection of local systems provides the opportunity for quick access by librarians and library patrons to the resources of other libraries and the means for transferring bibliographic and other data between library systems. The second major area of innovation in the use of computers will be the more effective exploitation of local resources through the enhancement of OPAC's, which at the present time are principally automated versions of the traditional card catalog that provide several new access points to information contained in the standard MARC cataloging record along with boolean searching capacity. It is clear that this is a minimal use of the OPAC and that capacity for expansion provides new opportunities to improve patron access to the resources of individual libraries.

The project as planned here is replicable and has unique features of value to a broad array of academic and research libraries. Now that the initial stage of library automation has been completed, libraries are turning to the question of further applications of their OPACS for information access. Library managers are seeking ways to improve and enhance access to local collections. This project will demonstrate the following innovations in the application of technology to these needs:

- o further "opening" the collection by analyzing the existing periodical titles through the OPAC, and giving the patron a faster more powerful means of searching for periodical information in the

local collection and in the collections other local academic libraries;

- o reducing the user frustration by providing better use of local materials and avoiding the retrieval of irrelevant materials;
- o reducing the demand placed on interlibrary resource sharing;
- o assuring local administration and funding sources that local resources are being utilized to the maximum extent feasible; and
- o demonstrating that technical capability of a library membership network (AMIGOS) can be used to provide a general service of customizing periodical databases for use in the local OPAC's, and that the network may achieve economies for member libraries by acting as a licensing agent for proprietary/commercial databases.

"There is evidence from library users, library educators, or library administrators that . . .[this] demonstration project is desirable."

Some experimentation has already been undertaken to provide electronic periodical access, but the orientation of these efforts has been toward loading full periodical data bases, which have been previously available through on-line searching using commercial vendors. These experiments are aimed at resolving the problems of scholars at major research universities and have sustained costs which are prohibitive for small to mid-size university and college libraries. However, in project planning, library administrators who are involved in such experiments were consulted. They indicate that the project approach being suggested here has unique and valuable features. Their letters are attached in Appendix V.

"The project meets a special national or regional need in utilizing technology to enhance library or information sciences."

It is probable that the majority of users in academic libraries, particularly undergraduates, conduct library research to find any available material on a subject, not all available material. This need would be better met by loading in the OPAC electronic periodical indexing solely for the local periodical collection. The successful implementation of this project will demonstrate an application of technology which will be useful to hundreds of small and medium size academic libraries and tens of thousands of their patrons nationwide by providing a cost-effective model for small to mid-size academic libraries to exploit the resource of the OPAC through loading of electronic periodical indexing, which is at present priced beyond their means. Strong indication of support of the need and utility of this demonstration project is to be found in the letters of support from library administrators (Appendices II, III, and V)

"The project was developed in consultation with leading experts and takes account of current research."

Authorities in the area of information technology and library automation who were consulted include: Dr. William Potter (Arizona State University Libraries), Dr. John Corbin (University of North Texas, GSLIS), and Dr. Martin Dillon (OCLC). Their letters of support are attached in Appendix VI).

"The applicant provides plans to disseminate the results of the project."

During the two years of the proposed project, reports will be made by Charles Lowry, the Primary Investigator and the other UTA participants to the AMIGOS semiannual Membership Meeting, which is attended by administrators and librarians representing nearly 350 libraries. These "progress reports" will be videotaped and edited for distribution to other libraries through ILL. A project report will be prepared for distribution through ERIC (Educational Resources Information Clearinghouse) and distributed on request by AMIGOS. An article will be prepared for publication in Library Administration and Management (ALA/LAMA) which is edited by Dr. Charles Lowry. In addition, news releases will be issued regularly to appropriate media such as LITA Newsletter, American Libraries, Library High Tech News, and Library Journal.

APPENDICES SUPPORTING NARRATIVE OF

ONLINE PUBLIC ACCESS CATALOG ENHANCEMENT PROJECT

A RESEARCH AND DEMONSTRATION GRANT PROPOSAL

THE UNIVERSITY OF TEXAS AT ARLINGTON LIBRARIES

APPENDIX I
AMIGOS CAPABILITIES

AMIGOS Personnel:
Louella V. Wetherbee, Executive Director, has extensive background in library serials cataloging, technical services, and library automation. She will serve as Co-Investigator, act as an expert consultant to the project team, and will be instrumental in organizing and coordinating input to the project from the Project Advisory Group. It is anticipated that most members of the Project Advisory Group will be librarians from AMIGOS member libraries.

Tom Hopkins, Associate Director for Computer Services, Douglas White, Manager, Internal Services, Computer Services Department, and Theresa Jennings, Programming Manager, Computer Services Department. AMIGOS will provide the expertise and time of these three senior managers in the Computer Services Department. Mr. Hopkins will act as senior technical consultant on the project and will act as senior technical consultant on the project and will insure that AMIGOS can deliver the product as outlined in the proposal. Mr. White and Ms. Jennings each have extensive programming experience in the specialized area of bibliographic record processing for library automation. Both of these individuals are experienced in library data processing application and both professional librarians.

AMIGOS Bibliographic Council:
AMIGOS will play a key role in the development of the product, utilizing their extensive experience in assisting libraries across the country in database preparation for local library automation. AMIGOS has completed many projects requiring analysis, programming and manipulation of extremely large and complex data files. They have both the technical expertise and the marketing capability to make the product, more generally available to the library community. AMIGOS will demonstrate both commitment to producing the initial product for the University of Texas at Arlington and the capability to broadly disseminate the product.

AMIGOS Computer Services Department has extensive experience in OCLC archival tape maintenance and all aspects of tape processing for local automated systems. AMIGOS maintains a magnetic tape database of approximately 64,000,000 MARC records for more than 850 libraries, including Bibliographical Center for Research, Missouri Library Network Corporation, NELINET, NEBASE, as well as AMIGOS members. AMIGOS specializes in customized services.

Basic services include OCLC archival tape maintenance and extraction. AMIGOS' library-oriented programmers work with individual libraries to implement or upgrade databases for local library application. Customized specifications are developed for

- o Duplication record resolution (eliminating or merging unwanted bibliographic records)
- o Item conversion of OCLC local data to local system formats
- o Barcoding services, including barcode number generation and label print tapes
- o Collection analysis.

In order to provide these services, AMIGOS acquired a Tandem Non-Stop computer system in 1981. Today the Non-Stop II computer system operates with the following configuration:

4 Non-Stop processors (CPU)
13 Megabytes of Main Memory
3.8 Gigabytes of online disk capacity
5 Magnetic tape drives (800 and 1,600 bpi)
32 Asynchronous communication ports
4 Byte synchronous communication ports
27 Direct connect terminals
5 Telco connected remote terminals

All library applications use the Tandem TAL (Tandem Application Language) which is very similar in syntax to the popular "C" language.

APPENDIX II

KEY PERSONNEL—CV's

CURRICULUM VITAE

CHARLES BRYAN LOWRY

HOME ADDRESS:
1600 Stagecoach Drive
Arlington, Texas 76013

HOME PHONE:
817/275-6022

OFFICE ADDRESS:
Library Administration
P. O. Box 19497
Arlington, TX 76019

OFFICE PHONE:
817/273-3391

EMPLOYMENT

DIRECTOR OF LIBRARIES, THE UNIVERSITY OF TEXAS AT ARLINGTON, Arlington, Texas (1985-Present), Associate of the UTA Faculty. Reports to the Vice President for Academic Affairs.

The University: Located in the Dallas-Fort Worth "metroplex" and the second largest in the University of Texas System, the Fall, 1987 enrollment was 23,244 students in the Colleges of Business Administration, Engineering, Liberal Arts, Nursing and Science; School of Architecture and Environmental Design, Graduate School, Graduate School of Social Work, Institute of Urban Studies, and Center for Professional Teacher Education. The University grants Doctoral degrees in eighteen programs comprising over 45 fields, and Masters in 35 non-doctoral fields as well as Bachelors degrees. University expenditures were $102,675,825 (FY 1986-87).

Library Program and Description: The University Libraries have a total staff of 106 and expenditures of $5,250,834 (FY 1986-87), including: Operation and Maintenance $2,244,545, Automation $958,000, Materials $1,767,289, and Miscellaneous $281,000).

The University Libraries are a charter member of AMIGOS and the founding institution for the Association for Higher Education in North Texas (1968). They participate in BRS, DIALOG and Medline Services, maintain a NOTIS on-line catalog and circulation system and are installing NOTIS acquisitions, serials control, and fund accounting. University Libraries are participating in the development of the University of Texas Libraries Network which will interconnect the academic and medical libraries of the UT System through the Balcones Center for High Performance Computing telecommunications network.

Central Library - 38 Librarians; 63 paraprofessional staff;

670,000 vols.; 6000 serial titles; 198,256 microforms; and 232,826 hard copy and 630,000 microform documents in USG-PO Depository Collection (1987 statistics).

Special Collections - Central to Special Collections is the extensive body of rare books, graphics, manuscripts, newspapers and microfilm in the Jenkins Garrett Library, documenting Texas history from the beginning of European exploration to the present. The Jenkins Garrett Library also contains the nation's most comprehensive collections of books and related documents on the Mexican War of 1846-48. A wealth of historical documents pertaining to early Texas history is also found in the Robertson Colony Collection. These records are being published by the UTA Press. Another major division of Special Collections is the Cartographic History Library, a center for the study of the history of five centuries of exploration and mapping of the New World. Other collections relate to historical events of the twentieth century: the Texas Political History Collections, the Texas Labor Archives, serving as the official depository of the Texas AFL-CIO and its affiliates and the Fort Worth Star Telegram Photographic Archives.

Art and Architecture Branch Library - supports both the Department of Art and the School of Architecture and Environmental Design; 1 Librarian; 2 paraprofessionals; 11,181 vols., and 266 serial titles.

Engineering/Science Branch Library - construction began in the Spring of 1986 with occupancy planned for the Summer of 1988.

Robotics Information Center - 1 librarian; 100 serials; small reference collection; opening in Spring, 1987 and located in the College of Engineering Robotics Research Center in Fort Worth, a "high-tech" R & D center funded by over $5,000,000 in business, industry and foundation grants; the RIC will function as a special library serving 30 resident faculty and graduate students and primarily relying on electronic information transfer.

Principal Duties: Overall administrative responsibility including budget planning and administration, program planning, and personnel for all library operations.

Additional Duties: Serves as ex officio on the University Library Committee; serves on the Council of Deans, Graduate Council, and Undergraduate Assembly.

DIRECTOR OF LIBRARIES, UNIVERSITY OF SOUTH ALABAMA, Mobile, Alabama (1980-1985), rank of Senior Librarian with tenure and adjunct Professor, Department of History. Reported to the Vice-President for Academic Affairs.

The University: Fall, 1984 enrollment of nearly 10,000 in the

Colleges of Arts and Sciences, Allied Health Professions, Business and Management Studies, Education, Engineering, Medicine and Nursing and the Division of Computer Sciences. The University grants Bachelors, Masters, Medical and Doctoral degrees. The University budget was $107,264,064 including hospital operations (FY 1983-84).

Library Program Description: The University Libraries budget was $2,276,840 (in FY 1983-84).

NOTIS, Northwestern University Library's integrated automation system, was purchased in December, 1981, and was fully operational in April, 1983.

The University Libraries are a charter member of SOLINET and the Network of Alabama Academic Libraries and use BRS, DIALOG, and Medline Services. In addition, the Biomedical Library is a member of the NLM Regional Library Program.

University Library - 15 Library Faculty; 24 paraprofessional staff; 260,580 vols.; 3,200 serials; 3,885 AV's housed in Library's Instructional Media Center; 525,068 items in Library's Microform Center; 460,794 hard copy and 232,799 microform documents in USGPO Depository Collection; and over 200,000 items in USA Photographic Archives. (1982-83 statistics)

Biomedical Library - 8 Library Faculty; 14 paraprofessional staff; 65,088 vols.; 2,460 serials, and 5,000 microforms.

Principal Duties: Overall administrative responsibility including budget planning and administration, program planning, and personnel for all library operations.

Additional Duties: Served as ex officio on University Libraries Committee; served on the Vice President's Council and the Council of Academic Deans; served as administrative advisor to Standard VI Library Committee in the (1981-82) Self-Study for the Southern Association of Colleges and Schools.

HEAD LIBRARIAN AND DIRECTOR OF LEARNING RESOURCES, ELON COLLEGE
Elon College, North Carolina (1978-80), rank of Associate Professor, Social Sciences Division. Reported to the Vice-President for Academic Affairs.

Library Program Description: Library - 5 Librarians; 8 support staff; and 30 part-time staff; 150,000 vols.; 900 serials; 4,500 AV's; Partial USGPO Depository.

LRC - 5 professionals; 3 technical staff; and 25 part-time staff; AV production and hardware circulation; academic computer (Digital PDP 11/34); tutorial assistance and skills lab; entry

level and competency testing program.

Principal Duties: Overall administrative responsibility for operation of the Library and Learning Resources Center, and direct responsibility for collection development. Developed an on-line automated acquisitions system on Microdata mini-computer.

Additional Duties: Ex officio member of Faculty Library/LRC Advisory Committee; faculty judge on Student Honors Court; student advisor; secretary of the Elon College Standard VI Library Committee for the Southern Association of Colleges and Schools and primary author of the draft report for (1980-81) Self-Study. See also, Grant Activity below.

HEAD OF REFERENCE, ATKINS LIBRARY, UNIVERSITY OF NORTH CAROLINA AT CHARLOTTE Charlotte, North Carolina (1974-78), Social Science Reference Bibliographer, rank of Assistant Professor.

Library Program Description: (1975-77) Head of Reference - 7 librarians and 6 support staff; reference services in all subjects; U.S. Documents; computerized searching for ILL and Medline.

Principal Duties: General and social sciences reference collection development and bibliographic instruction. Member of the Collection Development Group which was responsible for oversight of collection development and fund allocation, and College of Behavioral Sciences Library Committee which coordinated all College selection and fund allocation activities.

Additional Duties: Library Faculty (LF) Representative UNCC Faculty Executive Board (1974-78), governing board of faculty; Secretary of UNCC Faculty (1978-79, term not completed); LF Executive Board (1975-78); LF Library Development Committee (1974-75); Professional Development Committee (1974-78); (Chair, 1974-77); Vice President/President-Elect LF (1978-80; term not completed). See also, Grant Activity below.

CHAIRMAN OF SOCIAL SCIENCES DIVISION, FAULKNER STATE COMMUNITY COLLEGE, Bay Minette, Alabama (1965-69), rank of Instructor with tenure. Reported to the Dean of the Faculty.

Duties: Major teaching responsibilities were in history; additional teaching responsibilities were in geography and sociology. Served on five standing committees of the College and

chaired two Southern Association of Colleges and Schools accreditation committees.

PROFESSIONAL DATA

BOARDS AND ADVISORY COMMITTEES:

Chairman, Association for Higher Education in North Texas (AHE) Library Committee (1987-);University of Texas Board of Regents Committee on Library Automation Standards (1986-87); AMIGOS Representative to the OCLC User's Council (1986-88); Member Review Group, Automation Study, AHE (1985-87); Member Texas Council of State University Librarians (1985-); Chairman TCSUL Statistics Committee (1987-88); Board of Directors, Southeastern Library Network (term 1983-86); Vice-Chairman SOLINET Board (term 1984-85); Chairman and member SOLINET/OCLC Contract Committee (1984-86); member SOLINET Budget & Finance Committee (1984-85); Vice-Chairman and Chairman Elect of the Council of Librarians, Alabama Commission on Higher Educaton (1983-85); Advisory Council, Network of Alabama Academic Libraries (1983- 85); Advisory Committee for the Evaluation of Multitype Library systems (LSCA Grant, 1983-85) for Alabama Public Library Service; Alabama Advisory Council on Libraries, APLS (1983-85); Mobile, Alabama Municipal Archives Disposal Committee (1983-85); APLS Automation Committee (1982-85).

CONSULTANCIES:

LSU Shreveport, co-consultant on Library (with Dr. Edward G. Holley, 1981) for LSUS Chancellor; Consultant on Library and Learning Resources Center Lincoln Memorial University Strengthening Developing Institutions Program (U.S. Department of Education, 1980-81); and co-consultant (with Dr. P. Grady Morein) on OMS/ARL Small Library Program (1980-81) at Transylvania College Library.

AWARDS, HONORS AND TRAINING:

Friends of UTA Libraries (1986-87) organizational campaign won a John Cotton Dana Library Public Relations Award (1988) from Library Administration and Management Association/ALA and H. W. Wilson Company.

UCLA Visiting Scholar and participant in the Senior Fellows Program, Graduate School of Library and Information Sciences (August, 1985); funded by the Council on Library Resources.

Participant in Consultant Training Program (1979-80); Office of Management Studies, Association of Research Libraries, Washington, D.C.; funded by the Mellon Foundation and Council on Library Resources.

NDEA Title IV Fellow at the University of Florida; Treasurer

(1970-19[illegible]) and President (1971-1972) of Phi Alpha Theta (Gamma Eta Chapter), National History Honorary Society; listed in Who's Who in Library and Information Services, 1982; listed in Who's Where Among Writers, Gale, forthcoming.

SOCIETY MEMBERSHIPS AND ACTIVITIES:

American Library Association (ALA) and Divisions: Academic Status Committee, Association of College and Research Libraries (ACRL, 1987-89); Publications Committee, Library Administration and Management Association (LAMA, 1986-88); Chairman, Association of College and Research Libraries Search Committee for Editor of Publications In Librarianship (1986-1987); Publications Committee, ACRL (intern and member 1981-87); Membership Committee, LAMA (1981-86); Chair, Membership Committee, College Library Section, ACRL (1979-81); Bylaws Committee, Bibliographic Instruction Section, ACRL (1979-81); Bylaws Committee, Bibliographic Instruction Section, ACRL (1977-78); Reference and Subscription Books Review Committee, American Library Association (1976-80).

Other society memberships include: American Historical Association; American Association of State and Local History; Texas (Vice-Chair, Chair-Elect of the TLA Library Administration Round Table, 1988-90), Alabama, and North Carolina Library Associations; Southeastern Library Association; and American Association of University Professors.

EDITORIAL AND GRANT ACTIVITY:

Associate Editor (1987-89) and Editor (1989-91) of Library Administration and Management, the official journal of the Library Administration and Management Association (ALA Division); member of University of Alabama Press Committee (1981-85); manuscript referee, University of Alabama Press.

Administered Learning Resources Center Component (Activity II) of Elon College "Advanced Institutional Development Program." Prepared reports to U.S. Department of Education and drafts for grant extension request (1978-80).

Chaired Personnel Organization Task Force of Council on Library Resources funded ARL/OMS "Academic Library Development Program" Pilot Project (1975-76), University of North Carolina at Charlotte.

Research Assistant in the Office of Dental Education, University of Florida on USPHS research grant No. 1114 Dh2998-01. Primary duties were compilation of data and writing of narrative for 250-page Final Report (1969-70).

TEACHING:

In addition to full-time and graduate teaching positions and adjunct faculty appointments, UTA Department of History, teaching American History Survey (present); University of South Alabama, teaching "History of Colonial America" (1985); and UNC Graduate School of Library Science, Chapel Hill, taught LS 231 "Theory of Modern Library Management" (Summer, 1980).

EDUCATION

UNIVERSITY OF NORTH CAROLINA, Chapel Hill, North Carolina. MSLS (1973-74). Graduate assistant in the North Carolina Collection of Wilson Library with duties in reference, descriptive and subject cataloging, and classification. Full description of curriculum is available in files at the Career Planning and Placement Center, University of North Carolina.

UNIVERSITY OF FLORIDA, Gainesville, Florida, (1969-73), Ph.D. awarded 1979, American History, dissertation "Class, Politics, Rebellion and Regional Development in Proprietary North Carolina (1667-1720)," with minors in Colonial Latin America, England since 1485, Modern Europe since 1763, and Sociology (emphasis on stratification). Graduate teaching assistant in Department of History (1970-71); NDEA Title IV Fellow (1971-72), interim eight-month appointment; teaching appointment in University College (freshman/sophomore program) (1972-73), "Cybernetics and Society." Full description of curriculum is available in files at the Career Planning and Placement Center, University of Florida. See also, Grant Activity above.

UNIVERSITY OF ALABAMA, Tuscaloosa, Alabama (1964-65), M.A. in American History.

SPRING HILL COLLEGE, Mobile, Alabama (1960-64), B.S. in History.

PUBLICATIONS AND RESEARCH

Current research and writing in progress: Invited article on "MBO and Faculty Status," Journal of Academic Librarianship. Invited article, "Matrix Formula: Reconciling Pragmatism, Equity, and Need in the Allocation of Library Material Funds," College and Research Libraries. "The Cary Rebellion (1705-1711): Regional Conflict and the Failure of Compromise in North Carolina," Festschrift dedicated to John K. Mahon, Craig L. Symonds (ed.), University of Florida Press. With Dr. Fred Heath, "Comparison of Search and Selection Committees of Deans of Colleges and University Librarians."

Biographical sketches of Frederick Jones (1670-1722) and William

Maule (1680-1726), Dictionary of North Carolina Biography, Chapel Hill: University of North Carolina Press, (1979-), William Powell (ed.), forthcoming.

"Reexamining the Literature: a Babel of Research and Theory," in Leadership for Research Libraries, Anne Woodsworth and Barbara von Wahlde (eds.), Scarecrow Press, forthcoming, 1988.

"A Convergence of Technologies: How Will Libraries Adapt?", Library Administration and Management, March, 1988.

"Ownership of Bibliographic Data and Its Importance to Consortia," Journal of Library Administration, vol. 8, nos. 3/4, Fall/Winter 1987.

"Technology in Libraries, Six Rules for Management," Library Hi Tech Journal; Consecutive Issue 11, vol. 3, no. 3, 1985.

"Reactions to 1985 to 1995: The Next Decade in Librarianship, Part I and II," College and Research Libraries, July, 1985.

"NOTIS--The University of South Alabama Libraries' Experience in Automation," Alabama Librarian, January, 1985.

"SOLINET's Role in the Changing Environment of State Networking;" SOLINET Occasional Paper, No. 1, May 1985.

Review of Ruth J. Person, The Management Process, Chicago: American Library Association, 1983 and G. Edward Evans, Management Techniques for Librarians, 2nd ed., New York: Academic Press, 1983; in Informational Processing and Management, Fall, 1984.

"ARL/OMS Consultant Training Program: A Symposium," Journal of Academic Librarianship, September, 1982.

"Collection Adequacy," ch. I in Cooperative Library Resource Sharing Among Universities Supporting Graduate Study in Alabama,Alabama Commission on Higher Education, 1982.

Regular reviews in "Reference and Subscription Book Reviews," in Booklist, American Library Association. (1976-80)

"Holdings of the North Carolina Collection," North Carolina Libraries, Fall, 1976.

"The ACRL Standards and Library Governance, a Comparison of the Personnel Systems of Five Major Academic Libraries," (MSLS paper) ERIC, Resources in Education, November, 1975 ED 114 062.

"'The City on a Hill' and Kibbutzim, Seventeenth Century Utopias

as Ideal Types," American Jewish Historical Quarterly, June, 1974.

"The PWA in Tampa; A Case Study," The Florida Historical Quarterly, April, 1974.

PROFESSIONAL/SCHOLARLY PRESENTATIONS AND PANELS

Talks to civic organizations and interest groups are not included.

Invited participant at the "National Conference on the Development of Statewide Preservation Programs", sponsored by the Library of Congress, National Archives and Records Administration, and the National Endowment for the Humanities, Washington, D.C., March 1-3, 1989.

"Does Automation Really Serve People", Contributed Papers, Track A: The Human Factor, The Seventh Texas Conference on Library Automation, Sponsored by the University of Houston Libraries, et al, Houston, Texas, February 23-24, 1989.

"The Cost of Cooperation in Academic and Research Libraries", keynote address at joint Mini-Conference sponsored by AMIGOS Bibliographic Council, Inc., and the School of Library and Information Sciences at the University of North Texas, Denton, Texas, May 11, 1988.

"Bridges to Cooperation: The Association for Higher Education and University of Texas Systems Projects;" presentation at the Texas Library Association District VII Annual Meeting; Arlington, Texas, October 17-18, 1986.

"Strategic Planning: The Economics of Information--Costs Going Up, Costs Going Down"; presentation at Index Education Conference with the theme "Computers, Technology, and Learning"; sponsored by the American Library Association and INFOMART; Dallas, Texas, August 4-6, 1986.

"Life on the Technology Express"; ACRL President's Program, Group Discussion Leader, American Library Association Conference, June 28-July 3, 1986.

"Copyright and Contract: New Proposals for Action;" Panelist, SOLINET Annual Membership Meeting Program, May 14-16, 1986

"Dialogue: New Researchers/Experienced Researchers;" panelist at Theme Session IV, Association of College and Research Libraries, Fourth National Conference, Baltimore, Maryland, April 9-12, 1986.

Respondent to Allen Veaner Keynote, "The Next Decade in Academic

Librarianship," College and University Library Section, Texas Library Association: Fort Worth, Texas, April 7-9, 1986.

"James Michener's Texas in Historical Perspective" presentation for the Texas Voices Sesquicentennial Program sponsored by NEH and Texas Library Association, Fort Worth, Texas, March 11, 1986.

"Alliance for Excellence" and "A Nation at Risk," Panelist, Alabama Library Association Annual Conference: Mobile, Alabama, April 9-11, 1985.

"Tape-Matching Retrospective Conversion with the Library of Congress"; presentation at the Network of Alabama Academic Libraries Seminar on Retrospective Conversion: Birmingham, Alabama, November 12, 1984.

"Technology and Its Impact on Management"; presentation with respondent Frank Grisham; Southeastern Library Association Biennial Conference, Biloxi, Mississippi, October 17-19, 1984.

"The Network of Alabama Academic Libraries, a Single Purpose Network"; presentation at Spring Meeting of the Bay Area Library Association, Mobile, Alabama, May 17, 1984.

"State Networking"; moderator and organizer of panel discussion; personal presentation "SOLINET's Role in the Changing Environment of State Networking"; SOLINET Annual Membership Meeting, Atlanta, Georgia, May 10-11, 1984.

"MBO and Faculty Status at USA Libraries"; Panel presentation at College and University Section, Alabama Library Association Annual Conference, Birmingham, Alabama, April 10, 1984.

"Automation at USA Libraries"; Speech to the Technical Services Round Table, Alabama Library Association Annual Conference, Birmingham, Alabama, April 9, 1984.

"Matrix Formula: Reconciling Pragmatism and Equity in the Allocation of Library Material Funds." Paper presented to the Library Faculty at Vanderbilt, Nashville, Tennessee, July, 1983.

"Realities of Administration"; presented first day of workshop funded by Alabama Public Library Service; topic, "Management Styles and Strategies;" at University of Montevallo, April 1-3, 1982.

"Political Elites, Property and Prestige: Dimensions of Social Stratification During the Period of the Cary Rebellion." Paper delivered at the fall, 1978 meeting of the North Carolina Historical Society.

PERSONAL DATA

BORN: November 9, 1942
MARITAL STATUS: Wife: Marcia Duncan Lowry
CHILDREN: Bryan W., Druhan S.
PHYSICAL CONDITION: Health excellent, 6'3", 195 pounds.
NON-ACADEMIC INTERESTS: Running, carpentry, gardening, youth soccer.

REFERENCES

Dr. Edward G. Holley,
827 Levering #101
Los Angeles, CA 90024
(213) 825-4351
(advisor at UNCCH, may also comment on consultancies and career activities)

Frank P. Grisham,
Executive Director
SOLINET
Plaza Level 400 Colony Square
1201 Peachtree St. N.E.
Atlanta, GA 30361
(404) 892-0943
(may comment on SOLINET Board and career activities)

Dr. William Highfill
University Librarian
Auburn University
Auburn, AL 36849
(205) 826-4500
(Alabama colleague, may comment on state cooperative efforts)

Jordan M. Scepanski
Director of Libraries
California State University
(213) 498-4047
(former Assistant Director at UNCC, may comment generally on career development)

Duane Webster, Director
Office of Management Studies, ARL
1527 New Hampshire Ave., N.W.
Washington, D.C. 20036
(202) 232-8656
(colleague, May comment on UNCC/ALDP project, OMS training and co-consultancy work)

Joseph Boykin, Jr., Director
Clemson University Libraries
201 Sikes Hall
Clemson, SC 29631
(803) 656-3027
(former Director at UNCC, may comment on work)

Dr. Jo Watts Williams
Vice President for Development
Elon College
Elon College, NC 27244
(919) 587-9711
(may comment on work at Elon College)

Dr. Jeral Williams
Vice President for Academic Affairs
University of South Alabama
Mobile, AL 36688
(205) 460-6261

Dr. Bill Baker
Vice President for Academic Affairs
University of Texas at Arlington
Arlington, TX 76019
(817) 273-2103
(may comment on work at

Robert Charles Samson

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Facsimile: 817/273-3392

Employment History

University of Texas at Arlington — Sept., 1982 -
University Libraries

Assistant Director for Automation Services -- Responsible for evaluation, selection, procurement, installation, integration, and maintenance of all aspects of automation technology for the University Libraries. Instructs Libraries staff in the use of data processing equipment, procedures, and techniques. Serves as liaison with university Academic and Administrative computing services departments. Advises Director of Libraries in areas of service improvement and general systems management. Provides in-depth planning for future services and systems to be utilized in the University Libraries. Serves as a member of the Library Executive Council. Serves as a member of search committees and other ad hoc committees as assigned.

University of Texas at Arlington — Sept., 1981 - Aug., 1982
University Libraries

Library Systems Analyst -- Responsible for the application of computer and automated technologies to the University Libraries and specialized management expertise to Libraries' operations and problems. Coordinates studies designed to evaluate and improve Libraries' policies, procedures, and problems of service delivery systems, staff utilization, collection development, and other manual systems and services. Serves as a member of the Library Executive Council. Serves as a member of search committees and other ad hoc committees as assigned.

University of Texas at Arlington — Aug., 1980 - Aug., 1981
University Libraries

Engineering Librarian -- Responsible for the development of the collection in assigned subject areas, serves as Libraries subject liaison with academic departments of the University, furnishes traditional reference and online database searching services, supplies bibliographic instruction and orientation for Libraries' patrons, trains and

supervises personnel and evaluates job performance, and performs special assignments and projects as may be assigned.

Education

University of Illinois — Aug., 1973 - Jan., 1978
Urbana-Champaign
Bachelor of Science in Engineering Physics
Received, January 15, 1978

University of Illinois — June, 1978 - Jan., 1980
Urbana-Champaign
Master of Science in Library and Information Science
Received, January 15, 1980

Professional Memberships

American Library Association
Texas Library Association

Special Appointments

Chair, North Texas Association of Higher Education Library Committee, Technological Applications Study Group, 1982-1983.

Chair, University Libraries, Committee for Local Automation Systems Implementation, 1985-

Member, Administrative Computing Services User Group, 1986-

Combined Library and Technical Liaison with NOTIS Systems, Inc.

Related Skills

Skilled in the following computer programming languages: BASIC, FORTRAN, PL/I, and SAS.
Basic knowledge of IBM Assembler programming language.

STEPHEN K. STOAN

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EMPLOYMENT HISTORY

Assistant Director for Public Services, University of Texas at Arlington Libraries, 1987-
Head of Reference, Wichita State University Libraries, 1983-1987
Social Science Librarian, Wichita State University Libraries, 1979-1983
History Department, University of Oregon, 1977-1978
History Department, Ohio University, Autumn Quarter, 1976
History Department, University of Hawaii at Manoa, 1974-1976
History Department, Ohio State University, 1967-1974

EDUCATION

M.L.S., Kent State University, 1979
Ph. D., Latin American History, Duke University, 1970
M.A., History, Political Science; University of Florida, 1964
B.A., History, Political Science; University of Florida, 1963
A.A., Pensacola Junior College, 1962

PROFESSIONAL DEVELOPMENT

OMS Management Workshop, El Paso, Texas, November 1987
One-credit course on Problems in Administering the Academic Library offered by Allen Veaner at Kent State University, 1984
Workshop on Improving Supervisory Skills offered by Dr. Gerald Graham, WSU College of Business, 1982
Workshops on Personnel Evaluation and on Interviewing offered by Dr. John Belt, WSU College of Business, 1982
Library Management Workshop offered by Herbert S. White, Manhattan, KS, 1982

PROFESSIONAL MEMBERSHIPS

American Library Association; Association of College and Research Libraries; Texas Library Association

PROFESSIONAL ACTIVITIES

NEH Panelist for Humanities Projects in Libraries and Archives, October 1988

Chair of the Information Exchange Suite of the Library Research Roundtable, 1988-

Member of the ACRL Research Committee, 1986-88

Member of the RASD MARS Program Planning Committee for the 1988 ALA Conference in New Orleans, 1987-88

Organized and moderated a panel discussion on "The Future of Academic Libraries" at the annual meeting of the Kansas Library Association, Wichita, March 1987

Vice President/President Elect of the College and University Library Section of the Kansas Library Association, 1986-1987

Chair of a Theme Session entitled "Dialogue: New Researchers/Experienced Researchers," held at the ACRL Conference in Baltimore, April 9-12, 1986

Delivered a paper entitled "The Research Historian and Bibliography: A Case Study" at the annual meeting of the Association for the Bibliography of History held in New York City, December 27, 1985

Member of ACRL Chapters Council as liaison from the Kansas Library Association, 1986

Member of the Committee on Research Development, an ad hoc ACRL Presidential Committee named for the period 1984-1986

Co-Chair of the Local Arrangements Committee of the Kansas Library Association Conference held in Wichita, March 1985

Participant in a panel entitled "Library Research--What is it, Why is it, and How is it?" at the meeting of the Kansas Library Association, Topeka, October 13-15, 1984

Delivered a paper entitled "Research and Library Use--Perspectives of a Historian-Turned-Librarian" at the meeting of the Kansas Library Association, Manhattan, October 13-15, 1982

Chair of the Kansas Online Group Nominating Committee, 1982

Chaired a session entitled "Soviet-Mexican Relations" at the 18th Annual Central States Slavic Conference, Wichita, November 9-10, 1979

UNIVERSITY AND COMMUNITY SERVICE

Member of the Task Force on Faculty and Scholarly Activities for the North Central Association Accreditation Study, Wichita State University, 1985-86

Member of the WSU Senate Rules Committee, 1984-86

Member of the WSU Senate Admissions and Exceptions Committee, 1983-85

President of the Wichita State University Faculty Club, 1983

Delivered a lecture on "Spanish Trade and Navigation during the Colonial Period" in the Ulrich Museum of Art, WSU, November 18, 1983

Judge in the National History Day Contest sponsored by the WSU History Department for high school student, 1983-87

Judge in the Concurso de Capitacion para Estudiantes de Espanol sponsored by the WSU Romance Language Department for high school students, November 1982

Delivered an address on "U.S.-Latin American Relations" before the Turnip Club of Wichita, October 1982

Authored an article on the Falkland Islands Crisis for the Wichita Eagle-Beacon, May 16, 1982

GRANTS AND HONORS

President of Bibliokent, organization of library science students at Kent State University, 1978-79

Nominated for the Teacher of the Year Award in the College of Arts and Sciences at Ohio State University, 1973

Research grants from Ohio State, the American Philosophical Society, and Duke University, 1966-1974

Phi Beta Kappa, Phi Theta Kappa, Beta Phi Mu, Phi Alpha Theta

PUBLICATIONS

"Social Science Literature," in Sources of Information in the Social Sciences, pp. 1-62. Ed. by William H. Webb. 3d ed. Chicago: American Library Association, 1986.

"Historians and Librarians: A Response." College & Research Libraries News 47 (Sept. 1986): 503.

"To the Editor." College & Research Libraries 46 (May 1985): 258-61.

"Research and Library Skills: An Analysis and Interpretation." College & Research Libraries 45 (March 1984): 99-109.

"Computer Searching: A Primer for the Uninformed Scholar." Academe 68 (Nov.-Dec. 1982): 10-15. This article was selected by a jury for inclusion in Library Lit: The Best of 1983, ed. by Bill Katz (Metuchen, NJ: Scarecrow, 1984), an annual anthology dating from 1970.

"Latin American Movements for Independence." Latin American Research Review 11 (1976): 222-227.

Pablo Morillo and Venezuela, 1815-1820. Columbus: The Ohio State University Press, 1974.

SHIRLEY HOYT SHEETS

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(817) 273-3000 work

EDUCATION

B.A., North Texas State University, Denton, Texas, 1955 (Library Science and Music)

Graduate Study in Library Science (18 hours), Texas Woman's University, Denton, Texas, 1957-1958

M.L.S., North Texas State University, 1970

Seminar in Technical Services, North Texas State University, spring 1976

Course in ANGLO-AMERICAN CATALOGING RULES, 2nd ed., North Texas State University, summer 1979

EXPERIENCE

Assistant Director for Technical Services — Sept. 1977-present
The University of Texas at Arlington Library
Arlington, Texas

Served as Acting Director of the UTA Library, June 1984-June 1985.

Directed and coordinated acquisitions, cataloging, preservation, and circulation functions; assisted in preparation and management of budget and establishment of policies.

Directed organizational transfer of circulation function and wrote standards and procedures for centralized stacks management. Instituted procedures for organizing uncataloged books in Special Collections Division. Assisted in implementation of automated circulation system, including formatting of bibliographic records, writing procedures for input, initial training of staff, and planning and coordinating the tape load of bibliographic records into this system.

Set up new department for preservation. Served on planning committee to implement the NOTIS system. Coordinated retrospective conversion of bibliographic records.

Head, Monographs Department — June 1972-Aug. 1977
Technical Services Division, UTA Library

Directed acquisitions and cataloging functions for monographic materials; managed expenditure of monographc materials budget and the automated cataloging budget. Directed cataloging project for the Special Collection Division; planned and trained staff in automated online cataloging procedures.

Head, Catalog Department — June 1967-May 1972
UTA Library

Directed cataloging function.

Assisted in the design and implementation of an automated batch circulation system on IBM equipement.

Cataloger — Sept. 1963-May 1967
UTA Library

Served as Serials Cataloger, Sept. 1965-May 1967; established serials authority control and serials holdings catalog.

Cataloger — June 1962-Aug. 1963
Texas Wesleyan College Library
Fort Worth, Texas

Assistant Cataloger — Sept. 1955-May 1962
North Texas State University Library
Denton, Texas

Responsible for descriptive cataloging, authority control, and catalog management. Assisted in recataloging and shifting of periodical collection.

MEMBERSHIPS AND PROFESSIONAL AND OTHER ACTIVITIES

American Library Association

Texas Library Association
- Catalogers Roundtable
  - Vice-Chair and Chair, 1969-1971
- Program Committee, 1983/1985
- Professional Rights and Responsibilities Committee, 1986/1988

Association for Higher Education of North Texas
Cataloging Subcommittee
Chair, 1971/72
Acquisitions Subcommittee
Bibliographic Control Study Group
Chair, 1982/1984

Southwest CLSI Users Group
Chair, 1981/1983

AMIGOS Bibliographic Council, Inc., Dallas, Texas
Trainer for workshops in Texas, Arkansas, Oklahoma, and New Mexico on ANGLO-AMERICAN CATALOGING RULES, 2nd ed., 1979/80

North Texas State University Graduate School of Library and Information Sciences, Denton, Texas
Alumni Society, Vice-President and President, 1976/1978
Advisory Council for ALA accreditation, 1976
Invited to meet with ALA Accrediting Team, 1984

Association of Research Libraries OMS Basic Management Skills Institute, 1987

Attendance at various American Library Association pre-conferences on technical services and automation in libraries and at institutes and short courses on supervision and management, 1970-1988

The University of Texas at Arlington
Educational Technology Committee, 1982/1984
Employee Awards Committee, 1983
Advisor Zeta Nu Chapter of Sigma Alpha Iota, 1974-1977

Arlington Alumnae Chapter of Sigma Alpha Iota
Various offices, including President, 1975-1977

Consulting

West Virginia Wesleyan College Library, 1976
Stephen F. Austin State University Library, 1980

Mary Dabney Wilson

1314 West Cedar Street
Arlington, Texas 78712

(817) 274-2468 home
(817) 274-3000 work

Education

Graduate School of Library and Information Science, University of Texas at Austin — 1977 — M.L.S.

Randolph-Macon Woman's College — 1966 — A.B. (Art)

Professional Experience

Head, Bibliographic Control Department — January 1988-present
Library
University of Texas at Arlington

Manages all activities, staff and services of the department. Develops and implements departmental policies and procedures. Reviews and modifies organization of department to meet changing needs. Interprets and implements University and general Libraries policies applicable to the department. Monitors quality of work and evaluates staff of 6 Librarians and 9 Library Assistants. Responsible for departmental statistics and reports. Responsible for the management of bibliographic data in library online and manual catalogs.

Retrospective Conversion Authority Control Librarian — Apr. 1985-Nov. 1987
University Research Library
University of California, Los Angeles

As part of a specially funded retrospective conversion project, devised and wrote basic procedures for integrating name, series, and uniform title headings from 750,000 converted records into UCLA's online technical processing system ORION.

Hired, trained, supervised and evaluated 3.5-4 FTE (5-6 persons) Library Assistant III's and 2 FTE student assistants (6 persons).

Participated in the development of elements of the online authority control module. Revised and altered procedures as enhancements to ORION became operational. Provided progress reports including statistical data and projections.

Information Processing Laboratory Instructor — Jun. 1978-Mar. 1985
Graduate School of Library and Information Science
University of Texas at Austin

Two areas of responsibility: As Cataloging Lab Instructor, responsible for the demonstration and classroom instruction in the use of the OCLC database. Developed and revised problems in cataloging using ALA, AACR and AACR2 cataloging codes, Library of Congress and Sears subject headings, Library of Congress and Dewey classification schemes. Designed, supervised and evaluated a cataloging project for students in the advanced cataloging courses. Lectured on MARC tagging for books, serials and nonprint formats.

As Computer Lab Instructor, responsible for the staffing, operation, scheduling, maintenance and expansion of the computer lab. Trained and supervised 1.5 FTE lab personnel to assist students, faculty and staff in the utilization of campus computing facilities including mainframes DECSYSTEM-20, IBM 370 and CDC Dual Cyber 170/750; and such microcomputers as Apple II+, Apple IIe, Macintosh, IBM PCXT and IBM PC Jrs. The lab supported instruction in text

processing, programming in BASIC and PASCAL, database design, utilization of statistical analysis software, and commercial database searching.

Teaching Experience

Lecturer
Graduate School of Library and Information Science
University of Texas at Austin

Organization of Materials I (Spring 1984, Summer 1984)

Provided basic instruction in the concepts of descriptive and subject cataloging. Stressed the purposes of catalogs and related files and the interpretation of bibliographic records.

Organization of Materials II (Spring 1984, Spring 1985)

Developed the concepts learned in the basic course described above, emphasizing actual cataloging practice with AACR2, LC rule interpretations, LC classification and subject headings.

Professional participation, Honor Societies, Memberships

"Key Issues and Priorities for Authority Work in an Online Environment," LITA 2nd National Conference, October 2-6, 1988, Boston, Massachusetts. Co-speaker at a technical session.

"Series Description--Series Access," LITA/RTSD Authority Control Interest Group Program, American Library Association Annual Conference, June 30, 1987, San Francisco, California. One of three speakers at a program.

"Online Authority Control, or The Future is Almost Here," Southern California Technical Processing Group, March 4, 1986. Co-speaker for half-day workshop on online authority control.

Beta Phi Mu	1977-
Beta Eta Chapter President	1982-84
Phi Kappa Phi	1980-
American Library Association	1978-
Resources and Technical Services Division	1978-
Library and Information Technology Association	1986-
LITA/RTSD Authority Control Interest Group	1985-
Texas Library Association	1980-85,1989-
California Association of Research Librarians	1986-87
Southern California Technical Processes Group	1986-87
GSLIS Alumni Association, University of Texas at Austin,	Life Member

Publications

"Back to the Concept: Perspectives on Series Authorities," *Information Technology and Libraries*, (March 1988) : 79-83.

RESUME

PERSONAL DATA

Bernard S. Schlessinger
Professor
School of Library and Information Studies
P. O. Box 22905, TWU Station
Denton, Texas 76204
817/898-2617

2320 Georgetown
Denton, Texas 76201
817/382-2026

EDUCATION AND TRAINING

B.S. (Chemistry Major)	Roosevelt University Chicago, Illinois 1950
M.S. (Physical Chemistry Major, Mathematics Minor)	Miami University Oxford, Ohio 1952
Ph.D. (Physical Chemistry Major, Physics Minor)	University of Wisconsin Madison, Wisconsin 1955
M.L.S. (Library Science Major)	University of Rhode Island Kingston, Rhode Island 1975

TEACHING/RESEARCH AREAS OF SPECIALIZATION

Special Libraries
Indexing and Abstracting
Research Methods
Collection Development

PROFESSIONAL EXPERIENCE

Fall 1982- Professor of Library Science and Associate Dean, The Texas Woman's University

1977-1982: Professor of Library Science and Dean, Graduate Library School, University of Rhode Island, Kingston, Rhode Island

1975-1977: Professor of Librarianship, University of South Carolina, Columbia, South Carolina. Teaching duties in the area of Foundations, Research, Administration, Special Libraries, Science Literature, Information Science, Computer Science, Medical Librarianship, and Business Literature. Chaired committee that restructured the curriculum. Designed and introduced a program in Medical Librarianship. Set up and

advised a Library Organization Student Chapter. Served on University Library Committee.

1968-1975: Professor of Library Science and Assistant Director of Library School, Southern Connecticut State College, New Haven, CT. Extensive involvement with all phases of administration with special emphasis on student affairs and research coordination. Major responsibilities in work toward ALA accreditation for School of Library Science. Activities at the College included: membership on Curriculum Committee, Computer Education Committee, Student Affairs Committee, Library Committee, Athletic Committee, Faculty Chairmanship of the College Faculty Handbook Rewrite Committee, President of the Faculty Association, President of the Connecticut State Employees Association.

1966-1968: Senior Research Information Associate and Head Librarian, Olin-Mathieson Research Library, New Haven, CT.

1958-1966: Indexer and Head of General Subject Indexing Division of Chemical Abstracts Services, Columbus, OH.

1955-1958: Research Supervisor (First Lt., Captain) U.S.A.F. at School of Aviation Medicine, San Antonio, TX. Major interests: electrophoresis, ultracentrifuge, cardiovascular disease diagnosis

1955-1965: Research Chemist, American Can Company, Barrington, IL. Major interest: high temperature properties of waxes.

1952-1955: Teaching Assistant and Research Fellow (Biophysical Chemistry) at University of Wisconsin, Madison, WI.

1942-1950: Foreman's Assistant, Labor Mediator, Expediter, Rothmoor Corporation, Chicago, IL.

PUBLICATIONS AND PRESENTATIONS

A. Journal Articles and Copyrighted Material

1. Electrophoretic and Titration Study of Bovine Plasma Albumin. J. Phys. Chem. 62:916, 1958.

2. Cardiovascular Evaluation of West Point Cadets: A Four-Year Report. Mil. Med. 122:332, 1958 (with L. Milch).

3. Serum Parameters as Discriminators between Normal and Coronary Groups. Circulation, 19:10, 1959 (with L. Milch).

4. Influence of Exercise and Diet on the Blood Lipids of a Military Population. Mil. Med. 123:274, 1958 (with F. Martin and C. Havens).

5. The conversion of C^{14}-Acetate to Cholesterol in the Euthyroid and Hypothyroid Dog. Chapter in Hormones and Atherosclerosis, Academic Press, 1958 (with L. Milch and W. Filsinger).

6. The Relationship Between the Concentrations of Serum Lipoproteins and Serum Lipids. Mil. Med. 124:350, 1959 (with L. Milch and W. Filsinger).

7. Serum Lipids and Lipoprotein in Military Graduates. Mil. Med. 125:195, 1960 (with L. Milch and H. Frankel).

8. Directed preparation and publication of General Subject Indexes in all areas except for Organic and Biochemistry at Chemical Abstracts Services, Vol. 55 - Vol. 64.

9. Indexing and Abstracting, Paper No. 10, Southern Connecticut State College Series, 1966.

10. Physiochemical Property Data Treatment. J. Chem. Doc. 9:20, 1969.

11. Storage and Retrieval of Agricultural Screening Data. J. Chem. Doc. 9:37, 1969 (with H. Ackermann and R. Maizell).

12. A New Approach to Indexing Technical Reports in an Industrial Information Center. J. Chem. Doc. 9:51, 1969 (with T. Manning and R. Maizell).

13. Editor. Proceedings of 5th Annual Scientific and Technical Information Seminar, March 1971.

14. Library Science Research at Southern Connecticut State College. Proceedings of 5th Annual Scientific and Technical Information Seminar, 59, 1971 (with A. Powell and H. Agonis).

15. Computer Services in Industrial Libraries. Proceedings of 5th Annual Scientific and Technical Information Seminar, 74, 1971.

16. Teaching Scientific Literature in the Small College and University. J. Chem. Educ. 48:10, 1971 (with A. Powell).

17. Symposium on Functions and Contributions of the Industrial Information Center. J. Chem. Doc. 11:67, 1971.

18. Connecticut Library Association Recommendations on Job Descriptions and Salary Classifications for Connecticut Librarians. Conn. Libs. 13:27, Summer 1971 (with committee).

19. The Manpower Ladder: Position vs. Schooling. Conn. Libs. 14:10, Spring 1972.

20. Survey of the Users and Uses of the New Haven Free Public Library. April 1972.

21. Symposium on Cooperative Efforts in Information Processing. J. Chem. Doc., Spring 1973.

22. Library Skills Booklets. Xerox Education Publication, 1973 (with P. Jensen and J. Schlessinger).

23. Directory of Subject Strengths of Connecticut Libraries. SLA, 1973 (with SLA Committee).

24. Placements and Salaries for 1972 Southern Connecticut State College Graduates. Conn. Libs. 15:18, June 1973.

25. Library Skills Kit. Xerox University Microfilms, 1974 (with P. Jensen and J. Schlessinger).

26. Placements and Salaries for 1973 Southern Connecticut State College Graduates. Conn. Libs. 16:32, 1974 (with D. Osbaldiston).

27. Classification and Training of Librarians, cassette publication of three-hour workshop. ALA, 1977.

28. Plan for Excellence. RILA Bulletin. 50:24, November 1977.

29. The LTA in Perspective. California Librarian. 39:46, January 1978.

30. Employment Status of 1979 GLS Graduates. RILA Bulletin. 51:21, November 1978 (with Stewart Schneider).

31. The University of South Carolina Core Curriculum. Journal of Education for Librarianship. 19:172, Fall 1978 (with Charles Curran et al).

32. Continuing Education-General Considerations with Application to School Librarians, in Excellence in School Media Programs: Essays Honoring Elizabeth T. Fast. ALA, 1979 (with Patricia Jensen).

33. Continuing Education Programming at URI's GLS. RILA Bulletin. 51:2, April 1979.

34. Scientific Technical Libraries in Academic Institutions in the U.S., Sci-Tech News. 33:85; 34:5, 1980.

35. English Language Trends in German Basic Science Journals: A Potential Collection Tool. Science and Technology Libraries. 1 (3), 55-66, 1981 (with A. Stankus and R. Schlessinger).

36. Teaching of Scientific Literature. II. J. Chem. Educ., Fall 1980 (with J. Douville).

37. Report of Planning Conference for Rhode Island Libraries in the Eighties. RILA Bulletin, March 1981, 23-29.

38. Biochemistry Subject Collections: An Introduction. Special Collections 1 (2): 3-6, 1981.

39. Biochemistry Collections: A Cross-Disciplinary Survey of the Literature. New York: Haworth Press, 1982.

40. The Basic Business Library: Core Resources. Phoenix, AZ: Oryx Press, 1983.

41. Indexes to Basic Business Library: Core Resources. Phoenix, AZ: Oryx Press, 1983.

42. "Preface," in Basic Business Library: Core Resources. Phoenix, AZ: Oryx Press, 1983.

43. "Introduction to the Core List," in Basic Business Library: Core Resources. Phoenix, AZ: Oryx Press, 1983, 3-4.

44. "Introduction to Literature Survey," in Basic Business Library: Core Resources. Phoenix, AZ: Oryx Press, 1983, 54-56.

45. "Acquisitions and Collection Development in Business Libraries," in Basic Business Library: Core Resources. Phoenix, AZ: Oryx Press, 1983, 89-94 (with Constance Cameron and Kathleen Fencil).

46. "Making the Business Library Visible," in Basic Business Library: Core Resources. Phoenix, AZ: Oryx Press, 1983, 175-180 (with Janet Harrington).

47. "Uses of Microcomputers in Education for Librarianship and Information Science," in C. Keren and L. Perlmutter, The Applications of Mini- and Micro-Computers in Information, Documentation and Libraries. Elsevier: Amsterdam, 1983, 447-454 (with June Schlessinger).

48. "Uses of Microcomputers in Schools - Library Interactions with Subject Areas," The Applications of Mini- and Micro-Computers in Information, Documentation and Libraries. Elsevier: Amsterdam, 1983, 177-182 (with June Schlessinger).

49. "Scientific-Technical Library Facility Construction in Texas-Oklahoma-Louisiana, 1977-1984." Science & Technology Libraries 4(Winter 1983):109-115 (with Frank Turner and Kris Sandefur).

50. "The Use of Microcomputers in Education for Librarianship and Information Science." Education for Information, 2(1984): 29-34 (with June Schlessinger).

51. "Public Library Trustees in Texas." Public Library Quarterly 5(Winter 1984):41-45 (with Peggy Williams).

52. "Integration of Information Science into Library Science Curricula in Accredited Library Schools in the United States," Proceedings of the International Online Conference, London, 1983 (with June Schlessinger).

53. "Indexing of Small Newspapers." The Indexer 14(3)184-89 (1985) (with Lesley Sandlin and June Schlessinger).

54. "Conducting the Performance Appraisal Interview." Texas Library Journal 61(1) 18-19, 32 (1985) (with June Schlessinger).

55. "Keeping the Devil Away from Miss Jones: Censorship in Academia, 1976-80." ERIC Document Z 42237 (with L.B. Woods).

56. Review of Acquisition and Collection Development in Libraries, by Rosemary Magrill and Doralyn Hickey, International Journal of Review in Library and Information Science, 1985.

57. "Religious Libraries in Oklahoma," Oklahoma Librarian, Winter 1986 (with Joy Leverett and June Schlessinger).

58. Who's Who in Nobel Prize Winners. Phoenix, AZ: Oryx Press, 1986.

59. "Index," in Statistics for Librarians. ARL, 1986.

60. Index to Texas Library Journal, 1985 and 1986.

61. Automation Column editing, Texas Library Journal. Winter, 1986.

62. "Programming for Children in Public Libraries," accepted for publication by Public Library Quarterly (with Joyce Bergin and June Schlessinger).

63. "Budgeting in Special Libraries," Special Libraries Bulletin - Texas Chapter, Spring, 1987 (with Elizabeth Gwyn and Brenda Westbrook).

64. Current Studies in Librarianship, 1986, #'s 1 & 2, coedited with Rashelle Karp.

65. "Research in Literature for Children and Young Adults: Trends in Portrayal of Minorities in the Nancy Drew Series," accepted for publication by Top of the News, (with J. Miller and J. Schlessinger).

66. "Research in Literature for Children and Young Adults: Anti-social Behavior by Children in Newbery Prize-Winning Books," Current Studies in Librarianship, 1987, 80-86 (with John Bennett and June Schlessinger).

67. Current Studies in Librarianship, 1987 issue, coedited with Rashelle Karp.

68. "Core Collection for a Petroleum Library," accepted for publication by Annual Review of Library Administration (with Nancy Tapping and Rashelle Karp).

69. Automation Column, Texas Library Journal, Summer, 1987 (with Marie Bloechle).

70. Automation Column, Texas Library Journal, Fall, 1987 (with Alan Heindel).

71. Automation Column, Texas Library Journal, Winter, 1987 (with Janis Bandelin).

72. Index to Texas Library Journal, 1987.

73. "Core Collection for a Theatre Arts Library," accepted for publication by Annual Review of Library Administration (with Lynn Schofield and Rashelle Karp).

74. The Basic Business Library: Core Resources. 2nd edition. Phoenix, AZ: Oryx Press. Completed November, 1987.

B. Mimeographed Publications, Abstracts, etc.

1. Approximately 5000 abstracts prepared for Chemical Abstracts 1950-1966.

2. Test of Gibbs Absorption Equation, Using Tagged Sodium Lauryl Sulfate, M.S. Thesis.

3. Physiocochemical Properties of Bovine Plasma Albumin, Ph.D. Thesis.

4. School of Aviation Medicine. West Point Cadet Study Progress Report III. Report No. 58-29.

5. School of Aviation Medicine. Serum Parameter Discriminators. Report No. 58-125.

6. School of Aviation Medicine. Fort Chaffee Exercise Study. Report No. 59-6.

7. School of Aviation Medicine. Serum Lipoid Concentrations. Report No. 59-45.

8. School of Aviation Medicine. West Point Cadet Study Progress Report V. Report No. 60-17.

9. Summary - Survey of the Users and Uses of the New Haven Free Public Library, March 1972.

10. Time Lag Between Report Appearances in Government and External Literature. Abstracts of 163rd ACS meeting in Boston, 1972 (with H. Agones).

11. Where is Information Research Being Done? Abstracts of 163rd ACS Meeting in Boston, 1972 (with R. Levinson).

12. A Selected List of Business Reference Tools. University of South Carolina, 1977 (with H. Jordan).

13. Evaluation of Central New England College of Technology Collections. Report on Consultancy to ONECT, May 1978 (with A. Stankus).

14. Report to COA on Western Michigan University, November 1980 (with James Govan, Mickey Bouvey, and Kay Cassell).

15. Report to COA on Florida State University, October 1981 (with Margaret Chisholm, Herman Totten, and Carolyn Markason).

16. Report to COA on SUNY-Albany, April 1983 (with Margaret Chisholm, Judith Field and Pearce Grove).

17. Adult Materials on Religious Holidays, June 1983. Mimeographed bibliography for Dallas workshop.

18. Report to COA on SUNY-Buffalo, April 1984 (with Venable Lawson, Jane Morgan and Carolyn Scheurman).

19. Report to COA on Pratt Institute, October 1984 (with Don Wright, Joanne Harrar and Bruce Daniels).

20. Report to COA on Indiana University, April 1985 (with Irene Hoadley, Venable Lawson and Joanne Rogers).

21. "Feasibility Studies: Five Year Projections for Cooperative Activities, Technology Applications and Management Processes in the Libraries of the Joint Educational Consortium," Report on Consultancy.

22. "Management Planning," June 1985. Mimeographed 10-page document for Houston/Lubbock workshops.

23. "What Degree Level Are We Accrediting?" Position paper for COA Special Grants Committee.

24. Report to COA on University of Alabama, October 1986 (with Ken Beasley, Lucille Wert, Vivienne Montey).

25. "Planning for Libraries," June 1987. Mimeographed annotated bibliography for Chicago and Seattle workshops.

26. Report to COA on Wayne State University, October 1987 (with Sister Lauretta McCusker, Tim Sineath,.and Claire England).

C. Papers and Workshops Presented

1. Limitations of Access to Materials in Academic Libraries. Invited paper at CLA Regional, October 1969.

2. Continuing Education of Special Librarians. Invited paper at SLA Regional, November 1973.

3. Automation of Periodical Control. Workshop at SLA, Connecticut Chapter, May 1974.

4. Introduction to Computers for Chemists. Workshop at American Chemical Society National Meeting, Atlantic City, September 1974.

5. Introduction to Computers for Chemists. Workshop at American Chemical Society National Meeting, Chicago, September 1975.

6. The LTA in Perspective. Keynote speaker at New Jersey Library Association, May 1976.

7. Information Science Integration. Workshop at Southeastern Library Association, Atlanta, November 1976.

8. Information Science/Library Science. Workshop at AALS National meeting, Washington, DC, February 1977.

9. Administering the South Carolina Curriculum. Invited paper at National Curriculum Workshop, Chapel Hill, NC, March 1977.

10. Business Reference Tools. Two-day workshop at Charleston Public Library, S. Carolina, May 1977.

11. Government Documents for Business. Invited paper at SLA Georgia Regional, June 1977.

12. Response to Pittsburgh's Hillman Research Library Study. Invited response at New England Library Association, November 1977.

13. Hospital Librarianship-Today and Tomorrow. Speaker at Association of Rhode Island Hospital Librarians, November 1977.

14. Problems or Challenges - A Special Librarian Looks at the 1980s. Keynote speaker at 50th Anniversary of Cleveland SLA Chapter.

15. Media Futures of Library School Graduates. Invited paper at Rhode Island Educational Media Association, April 1978.

16. On-Line Systems Workshop, Coordinator & Instructor. University of Rhode Island, August 1978.

17. Five Major Issues in Librarianship. Connecticut Governor's Conference on Libraries, keynote speaker, October 1978.

18. Library Education for Information Personnel in a Changing Information World. SLA Boston keynote speaker, November 1978.

19. Indexing in Art. Art Librarians Society/New England keynote speaker in Boston, November 1978.

20. Continuing Education. Panel participant at RILA Annual Meeting in Newport, November 1978.

21. Media Specialist as Curriculum Developer. Panel moderator at CEMA in Middlebury, CT, November 1978.

22. Future of Libraries. Speaker at Cranston Public Library Appreciation Night, December 1978.

23. Automation Introduction Workshop, Coordinator and Instructor. Fairfield, CT, April 1979.

24. Automation Introduction Workshop, Coordinator and Instructor. University of Connecticut, July 1979.

25. Women in Management Workshop, Coordinator & Instructor. University of Rhode Island, November 1979.

26. A Journalistic View of Continuing Education. Speaker at New England Library Association, November 1979.

27. Automation Introduction Workshop, Coordinator and Instructor. Fairfield, CT, January 1980.

28. A Model of Library Education. Speaker at Association of College and Research Libraries--New England Chapter. New London, CT, May 1980.

29. Automation Introduction Workshop, Coordinator and Instructor. Fairfield, CT, June 1980.

30. On-Line Systems Management Workshop, Coordinator and Instructor. University of Rhode Island, July 1980.

31. Serial Articles on Line. Half-day presentation at Elsevier Publishers, New York, July 1980.

32. Advanced Workshop in Programming, Coordinator and Instructor. Fairfield, CT, August 1980.

33. Intermediate Workshop on Programming, Coordinator and Instructor. Fairfield, CT, August 1980.

34. Future of Libraries. Speaker at Darmouth Library Club, October 1980.

35. Planning Conference for Rhode Island Libraries in the Eighties, Coordinator and Planner, November 1980. Grant from DSLS.

36. Alternative Careers. Speaker at SUNY-Buffalo Colloquium, November 1980.

37. Directions. Speaker at Northeastern Library Council, Litchfield, CT, November 1980.

38. Evaluation of Bibliographic Instruction. Speaker at URI/GLS Workshop, November 1980.

39. Continuing Education for Health Science Librarians. Speaker at ARIHSL. Kingston, RI, November 1980.

40. Automation Introduction Workshop, Coordinator and Instructor. Fairfield, CT, January 1981.

41. Automation Introduction Workshop, Coordinator and Instructor. Fairfield, CT, May 1981.

42. Intermediate Workshop on Programming, Coordinator and Instructor. Fairfield, CT, May 1981.

43. Religious Literature Workshop, Coordinator and Instructor. Providence, RI, June 1981.

44. Business Literature Workshop, Instructor. Boston, June 1981.

45. Staff Development Seminar, Texas A & M Library, August 1981.

46. Planning Conference Follow-up, Coordinator, September 1981.

47. Barriers to Communication in Libraries. Speaker at NELA, Sturbridge, MA, September 1981.

48. Technology Future. Workshop speaker, Kingston, RI, September 1981.

49. Microcomputers in Libraries. Workshop speaker, Kingston, RI, September 1981.

50. Communication in Libraries. Workshop speaker, Andover, MA Public Library, September 1981.

51. Automation Workshop, Coordinator and Presenter. Portland, ME, October 1981.

52. Volunteerism-Pawtucket Public Library Speaker, October 1981.

53. Rhode Island Library Planning Conference Follow-up, Coordinator. November 1981.

54. Report on Planning Conference Follow-up. Speaker at RILA, Newport Annual Conference, November 1981.

55. Automation Workshop, Coordinator and Presentor. Portland, ME, February 1982.

56. Future of Librarianship. Presentation at Texas Woman's University, March 1982.

57. Automation Workshop, Coordinator and Presentor, Portland, ME, June 1982.

58. Planning for the '80s on a Statewide Basis. Speaker at RILA, Newport Annual Conference, November 1982.

59. Information Science in the Curriculum. Speaker at COA Meeting, ALA Midwinter, San Antonio, January 1983.

60. Response to Peggy Sullivan's Keynote on Professional Education. AALS Annual, San Antonio, January 1983.

61. Use of Microcomputers in Library Education. Presentation at International Conference in Jerusalem, March 1983 (with June Schlessinger).

62. Use of Microcomputers in Public Schools. Presentation at International Conference in Jerusalem, March 1983 (with June Schlessinger).

63. Adult Materials on Religious Holidays. Presentation at Dallas Region Workshop, June 1983.

64. Future Prospects for Army Librarians. Workshop at Army Librarians Institute, San Antonio, June 1983.

65. Accreditation and Information Science in the Curriculum. Presentation at Clarion University Colloquium, Clarion, PA, October 1983.

66. Judaism and Judaica. Speaker at Lutheran Church, Denton, TX, February 1984.

67. Library Programming for the WNET Heritage Series. Workshop chair, April 1984.

68. The Accreditation Process. Speaker at SUNY-Buffalo, April 1984.

69. Planning/Management Workshop. Texas State Library, Austin, TX, August 1984.

70. Planning/Management Workshop. Texas State Library, Denton, TX, August 1984.

71. The Accreditation Process. Speaker at Pratt Institute, Brooklyn, NY, October 1984.

72. Response to the Information Society. Speaker at ACRL Regional Meeting, Denton, TX, October 1984.

73. Integration of Information Science into Library Science Curricula in Accredited Library Schools. Read at International Online Conference, London, England, 1984.

74. The Accreditation Process. Indiana University COA Visit, April 1985.

75. Automation/Cooperation. Henderson State University, February 1985.

76. Personnel Evaluation in Academia. University of Hawaii Library School, April 1985.

77. Planning/Management Workshop. Texas State Library, Houston, June 1985.

78. Services to Exceptional Children. Clarion University Colloquium, July 1985.

79. Business Reference. Workshop, Northern Illinois University, July 1985.

80. Data Base Preparation. Psychoanalytic Institute, workshop and consultancy, Chicago, July 1985.

81. Planning/Management Workshop. Texas State Library, Lubbock, August 1985.

82. Judaism and Judaica. Speaker at First United Methodist Church, Denton, September 1985.

83. Judaism and Judaica. Speaker at First Baptist Church, Denton, October 1985.

84. Science Materials. Workshop at Northern Illinois University, Chicago, May 1986.

85. Cataloging in the Library Science Curriculum. Speaker at the Resources and Technical Services Division meeting, American Library Association Annual Meeting, January 1987, Chicago, ILL.

86. Planning for Libraries. Workshop at Northern Illinois University, Chicago, June 1987.

87. Planning for Libraries. Workshop at University of Washington, Seattle, July 1987.

RESEARCH GRANTS

1. $8,024 - Revision of Defense Documentation Center Thesaurus - Naval Underwater Systems Center (NUSC) Library, 1980.

2. $7,305 - Supervision and Training of Personnel - NUSC Library, 1980.

3. $23,875 - Supervision and Training of Personnel - NUSC Library, 1980.

4. $15,000 - Automation of Library Circulation - Frueauff Foundation, 1980-82 (three grants of $5000).

5. $26,293 - Supervision and Training of Personnel - NUSC Library, 1981.

6. $5,184 - Supervision and Training of Personnel - NUSC Library, 1981.

7. $7,502 - Supervision and Training of Personnel - NUSC Library, 1981.

8. $3,134 - Supervision of Training of Personnel - Governor's Energy Office Library, 1981.

9. $4,258 - Planning Conference - Department of State Library Services, 1981.

10. $29,600 - Supervision and Training of Personnel - NUSC Library, 1982.

11. $8,412 - Supervision and Training of Personnel - NUSC Library, 1982.

12. $8,412 - Supervision and Training of Personnel - NUSC Library, 1982.

13. $642 - Use of Microcomputers in Library Education - Texas Woman's University, 1982.

14. $350 - Petroleum Library Core Collection - Texas Woman's University, 1983.

15. $500 - Doctoral Program Lecturer. Federation of North Texas Area Universities, 1983. Prepared jointly with K. Cveljo.

16. Served as consultant to AHF for $140,000 grant received to utilize technology for increased cooperation.

APPENDIX III

ADVISORY GROUP LETTERS AND CV's

Stephen F. Austin State University

P.O. Box 13055, SFA Station • (409) 568-4101
Nacogdoches, Texas 75962-3055

December 20, 1988

Ralph W. Steen Library

Dr. Charles Lowry
Director of Libraries
University of Texas at Arlington
Box 19497, UTA Station
Arlington, Texas 76019

Dear Dr. Lowery:

I am writing to express my enthusiastic support for your grant proposal to demonstrate the utility of adding journal indexing to OPACs. As you know, Stephen F. Austin has been exploring options along the same lines and for the same reasons you are, as described in your grant proposal.

As a predominately undergraduate institution, much of our student research is done using journal indexes. Students are usually interested only in what we have in-house. It's frustrating for them to locate citations only to find that the library may not have the material. Commercial CD-ROM products are not a satisfactory alternative to what you are proposing: they don't help with the problem cited above and, like the printed indexes they are supposed to improve upon, they come with their own bewildering array of search strategies.

We have established an Access Services Department here for the express purpose of promoting computer-based information resources. A tool such as the one you propose to develop is an essential ingredient to the success of this program. Consequently, I wish you every success with your grant application.

The personal vita which you requested is enclosed. Please know that I will be happy to serve on the project advisory board.

Sincerely,

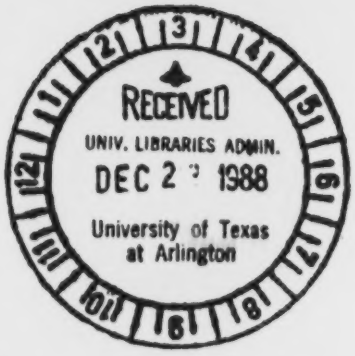
Alvin C. Cage
Director of Libraries

xc: Ms. Wetherbee, AMIGOS

University of Arkansas for Medical Sciences

LIBRARY
SLOT 586

4301 W. Markham
Little Rock, Arkansas
72205



December 21, 1988

Charles Lowry, PhD
Director of Libraries
University of Texas at Arlington
P.O. Box 19497
UTA Station, TX 76019

Dear Charles:

I am writing to say that I wholeheartedly support your project to enhance online catalog capabilities. In our library, we have often discussed the need to enhance access to the information in our collection, and this need is becoming even more critical as the amount of information increases and our budget situation deteriorates. Since we cannot afford to buy as many materials as we used to, we need to maximize the use of the materials we do have.

As you may remember, the library I work in has an online catalog and a separate journal citation file based on Medline and developed by CLSI. There is no integration of the two systems, they cannot both be accessed by the same terminal, and they use totally different search commands, etc. I am very aware of the disadvantages of having separate systems and the frustration it causes for patrons and library staff. I would be grateful if someone would develop a cost-effective way to integrate journal article citations into the online catalog. I would also very much like to have a system for enhancing the information in the monograph records by adding chapter information, such as that contained in the *Index to Scientific Book Contents*. I know you cannot do everything at once, and I think your project is a good way to start.

I know of no other type of journal citation product and service which is similar to what you propose to develop. Your approach is innovative and certainly has a lot of potential benefit for a large number of libraries. I think the AMIGOS staff is knowledgeable and competent, and that your collaborative efforts could be very successful.

I hope, for the sake of a lot of libraries, that you acquire funding for your project. If you do, I will be happy to serve on your project advisory board. As Lou requested, I have enclosed a curriculum vita for your records.

Sincerely,

Mary L. Ryan

Mary L. Ryan
Assistant Director for Technical Services

cc: Lou Wetherbee

Equal Opportunity Employer

THE GENERAL LIBRARIES
THE UNIVERSITY OF TEXAS AT AUSTIN

P. O. Box P · Austin, Texas 78713-7330

December 21, 1988

To Whom It May Concern:

I have reviewed the Online Public Access Catalog Enhancement Project Proposal. I believe that it is worthy of support as a Title IID demonstration project since it will add to our knowledge of how users search for and use periodical index information. It will also add to our knowledge of operational questions which must be resolved in providing index access tied to local and regional periodical holdings.

The approach of tying periodical indexing to local/regional holdings using existing online catalog software and limiting disk storage requirements seems a cost-justified approach for small and medium sized libraries which should be tested. Another particularly promising aspect of this proposal is the potential for generalizing periodical index load software to MARC standards so that customized indexes can be economically sold to libraries. If the linkage of locally (or regionally) owned periodical bibliographic data to periodical contents using online catalog search mechanisms proves to be of as much help to users as would a priori be expected, a low-cost online catalog load utility could be of benefit to a large portion of the library community.

The project has been well researched and well planned. I fully expect that the results of the project will be as outlined.

Sincerely,

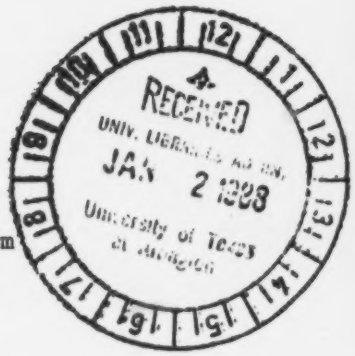
Jean Hamrick

Jean Hamrick
Assistant Director for Information
Systems Planning

JH:GW

Northeastern State University Tahlequah, Oklahoma 74464 Telephone: (918) 456-5511

John Vaughan Library/Learning Resources Center
Office of the Dean



December 28, 1988

College Library Technology and Cooperation Grants Program
U. S. Department Of Education
Washington D.C. 20202

We are writing in support of the Grant Application "Online Public Access Catalog Enhancement Project" being submitted by the University of Texas at Arlington.

As more and more libraries move into the online catalog environment, the need for research, experimentation, and development of enhanced and expanded uses for online resources is a real and focused need. The great problem with this type of research and experimentation is finding institutions and personnel willing (and able) to embark on such endeavors. This proposed project represents an innovative and bold approach by a library (and not a software vendor) to commit effort and resources to development of online approaches in keeping with library needs.

There are certainly national implications for not only the software developed, but the entire process and concept of library self determination represented by this project.

Sincerely,

J. Richard Madaus, Ph.D.
Dean of Library and Learning Resources

sterling c. evans library

texas a&m university
college station, texas 77843-5000
409-845-8111

2 January 1988

Dr. Charles B. Lowry
Director of Libraries
University of Texas at Arlington
P.O. Box 19497
Arlington, Texas 76019

Dear Dr. Lowry:

I support your proposal to incorporate journal literature citations of titles held by the University of Texas at Arlington in the online public access catalog as a demonstration project. Not only would the mapping of the data into the MARC format be beneficial to other libraries, but also the observed effect on users of this extension to the catalog would be of interest to other libraries in their planning. Certainly users have seen this as a logical next step in the development of online catalogs as reported in the landmark study of online catalogs funded by the Council on Library Resources.

This is an innovative project and achievable in the time frame specified. May you have success in locating funding for this worthy project.

Sincerely yours,

Sherrie Schmidt

Sherrie Schmidt
Assistant Director for
Collection and
Bibliographic Services

VITA

Alvin C. Cage
1000 Northwood Circle
Nacogdoches, TX 75961
Phone: (409) 569-7765 (Home)
568-1414 (Office)

October, 1988

Personal

Date of birth: April 26, 1943
Place of birth: New York City
Marital Status: Married, two children

Height: 5' 11"
Weight: 160 lbs.
Health: excellent

Education

B.A. Economics, Hunter College, City University of New York (1964)
M.L.S. Graduate School of Library Service, Rutgers University (1966)

Experience

1971-date Director of Libraries, Stephen F. Austin State University. Responsible for all library operations on a campus serving 12,600 students and 600 faculty. Planned new 147,000 square foot library building which was completed in 1973.

1969-1971 Assistant Librarian for Public Services, Rice University. Responsible for the operation of the several departments comprising public services; assisted in the design and installation of automated circulation system.

1967-1969 Coordinator of Technical Services, Texas Southern University. Duties as Acquisitions Librarian expanded to include supervision of Catalog Department and coordination of processing operations between the two areas.

1966-1967 Acquisitions Librarian, Texas Southern University. Responsible for the procurement of books and serials; supervised the Acquisitions Department; designed and programmed automated acquisitions system.

vita of Alvin C. Cage (cont.)

Professional Activity

Conference Treasurer, Texas Library Association, 1969
American Library Association Membership Committee, 1969-70
Texas Correspondent, LARC Newsletter, 1971-72
Finance Board, Texas Information Exchange, 1971-72
Vice President, Nacogdoches Friends of the Public Library, 1971-72
President, Nacogdoches Friends of the Public Library, 1972-73
American Library Association College Section, Goals Committee, 1974
Coordinating Board, Texas College and University System, Library Formula Study Committee for the following bienniums: 1975-76; 1977-78; 1979-80
Texas State Library and Historical Commission, Systems Study Advisory Committee, 1975-76
Texas State Library and Historical Commission, Systems Study Advisory Board, 1976-1978
Chairman, College and University Division, Texas Library Association, 1976
President, Texas Association of College Teachers, Stephen F. Austin State University Chapter, 1976
Texas Association of College Teachers, Committee on Organization, 1976
Vice President, Texas Library Association, 1977-78
Southwestern Library Association, SLICE Council, 1977-78
Southwestern Library Association, Executive Board, 1978-79
Planning Committee, Texas PreWhite House Conference on Library and Information Services, 1977-78
Goals and Curriculum Advisory Group, Graduate School of Library and Information Science, University of Texas at Austin, 1978
Executive Board, College and University Division, Texas Library Association, 1977-78
President, Texas Library Association, 1978-79
Accreditation Advisory Committee, Library Science Department, Sam Houston State University, 1979
Chairman, Ad Hoc Committee on Goals and Directions for Texas State Library, Library Development Division, Texas Library Association, 1980
Nominating Committee, AMIGOS Bibliographic Network, 1980
Executive Board Member, Texas Library Association, 1980-81
Conference Directions Committee, Texas Library Association, 1980-81
Management Consultant, Sam Houston State University Library, 1981
Committee on Future Directions for Executive Office, Texas Library Association, 1981
President, Data Phase Users Group, 1981-82
Public Access Committee, Data Phase Users Group, 1983
Nominating Committee, Texas Library Association, 1984
Vice Chairman, Texas Council of State University Librarians, 1983-84
Chairman, Texas Council of State University Librarians, 1984-date

vita of Alvin C. Cage (cont.)

Legislative Committee, Texas Library Association, 1984-85
Chairman, Planning Committee, Texas Library Association, 1985-86
Legislative Committee, College and University Division, Texas Library Association, 1984-86
Nominating Committee, Data Phase Users Group, 1986
Nominating Committee, District VIII, Texas Library Association, 1986
Legislative Committee, Texas Library Association, 1987-89
Legislative Committee, Texas Council of State University Librarians, 1987-89
Nominating Committee, Texas Library Association, 1987
Executive Director Search Committee, Texas Library Association, 1987
Ad Hoc Leadership Development Committee, Texas Library Association, 1988

Publications

"Data Processing Applications for Acquisitions at the Texas Southern University Library," in Proceedings, Texas Conference on Library Automation, 1969, Houston, Texas Library Association, Acquisitions Round Table.

"1972/74: Nacogdoches Gets a Public Library," in Texas Library Journal, Vol. 51, No. 1 (spring 1975).

"A New Library For Stephen F. Austin State University," in Texas Libraries, Vol. 35, no. 4 (winter, 1973).

"The Texas Higher Education Personnel Act: A New Status for Librarians," in Texas Library Journal, vol. 52, no. 4 (November, 1976)

"Management," in Texas Library Journal, Vol. 59, no. 1 (spring, 1983)

"User Education," in Texas Library Journal, Vol. 61, no. 1 (spring, 1985)

"Rx for Library Management," in College and Research Libraries, Vol. 47, no. 2 (March, 1986)

"Texas Academic Libraries At A Crossroads," in Texas Library Journal, Vol. 62, no. 4 (Winter, 1986)

vita of Alvin C. Cage (cont.)

Presented Papers, Lectures, and Addresses

Lecturer, American Association of Law Librarians, Conference, Austin, Texas, 1967
Lecturer, Second Conference on Automation for the Small and Medium Size Library, Midwestern University, 1969
"Effects of costs on technical services," (workshop) Texas Library Association, 1978
Lecturer, University Library Problems (Short course), Sam Houston State University, School of Library Science, 1978
Dedication Address, Gates Memorial Library, Lamar University at Port Arthur, 1980
"Selling the Library Automation Project to Administration and the User," Third Texas Conference on Library Automation (1982)
Keynote Address, Ohio State Library Association Support Staff Workshop: "Expanding Expertise," Bowling Green State University (1987)
Lecturer, Management Workshop, Northwest Ohio Library Consortium, Bowling Green State University (1987)
Texas State-Supported University Libraries: a Time of Crisis White Paper, prepared on behalf of the Texas Council of State University Librarians

University Service (Stephen F. Austin State University)

Graduate Council, 1972-date
Academic Deans Council, 1978-date
Classified Pay plan Committee, 1978
University Goals and Purpose Committee, Southern Association Self-Study, 1978
Office and Clerical Advisory Group, 1980
Chairman, Vice President for Academic Affairs Search Committee, 1981
University Computing Committee, 1984-date
Chairman, Vice President for Academic Affairs Search Committee, 1985
Chairman, Physical Resources Committee, Southern Association Self-Study

Community Service

Served as Vice President and President of Nacogdoches Friends of the Public Library, assisting in the founding of the public library by directing a drive to secure a building and $250,000 in foundation and other private support.

Awards

Outstanding Young Men of America (1974)
Who's Who in Texas Today, Sesquicentennial Edition (1987)
Librarian of the Year, Texas Library Association (1987)

vita of Alvin C. Cage (cont.)

Memberships

American Library Association
Texas Library Association

MARY L. RYAN

3821 Hill Road
Little Rock, AR 72205

Phone: 501 663-3704 (home)
501 686-6746 (work)

EDUCATION:

B.S., Sociology, University of Arkansas, 1970
M.S.L.S., Library Science, Louisiana State University, 1976
Computer Programming (9 hours), Technical Writing , German (14 hours), Historical Methods, University of Arkansas at Little Rock, 1978-1988

WORK EXPERIENCE:

Assistant Director for Technical Services
March 1978-Present

University of Arkansas for Medical Sciences
Library
Little Rock, Arkansas

Manage technical services department for the library of a state medical sciences university with colleges of medicine, nursing, pharmacy, health related professions, and a graduate school. I report to the Director, have charge of a staff of ten (at one time fifteen), formulate and implement programs and policies for the deparment, and assist the Director in budgeting and general administration. Technical Services includes Serials, Cataloging and Book Acquisitions, and History of Medicine/Archives divisions. The library has utilized the OCLC cataloging system since 1976, now utilizes the CLSI online catalog and Perline/ Bookline acquisitions and serials control system, and previously utilitzed an in-house serials control system. I serve as chair of the library's collection development policy committee and the faculty outreach committee. I am also responsible for editing the library newsletter, and as chair of the library's public relations committee, am responsible for several other library publications, including the *Library Guide*.

Serials Librarian
January 1973-February 1978

Tulane University
Rudolph Matas Medical Library
New Orleans, Louisiana

Was responsible for selection, budgeting, acquisition and processing (including binding) of serials. Supervised and trained 1-2 assistants.

Cataloging Assistant
July-December 1972

Tulane University
Rudolph Matas Medical Library
New Orleans, Louisiana

Typed, filed cards, verified cataloging information, and sometimes assigned subject headings for books.

Teller
August 1971-June 1972

Citizens National Bank
Walnut Ridge, Arkansas

Processed deposits and withdrawals, balanced accounts.

Teacher
August 1970-May 1971

Saint Paul Schools
Saint Paul, Arkansas

Taught 7th grade geography, 8th grade world history, 9th grade civics and Arkansas history, 10th grade world history, 11th grade American history, and 12th grade American government.

PROFESSIONAL MEMBERSHIPS AND ACTIVITIES:

Medical Library Association
Section Council Representative, 1987/88-1989/90; Chapter Council Secretary and Alternate Representative, 1984/85-1986/87; 1990 National Program Committee; Murray Gottlieb Prize Jury, 1987/88-1988/89; Technical Services Section Strategic Planning Committee, 1986- .

South Central Regional Group/MLA
President, 1987/88, and Vice-President, 1986/87; Program Committee Co-Chair, 1985 & 1988; Bylaws Committee Chair, 1982/83; Continuing Education Committee, 1980/81.

Health Sciences OCLC Users Group
Nominating Committee Chair, 1985; Program Committee, 1983/84; Serials Union List Committee, 1982-84.

Arkansas Library Association
Treasurer and Finance Committee Chair, 1982; Scholarship Committee Chair, 1983/84; Conference Local Arrangements Committee Chair, 1979.

SCAMeL Research Committee, 1988/89.

ADDITIONAL EXPERIENCES:

Worked for six weeks at the Midwives Information and Resource Service in London, England, and visited thirteen medical libraries in London and Southampton, October 26-December 4, 1987.

Developed and taught workshops on consumer health information for public libraries; taught several hospital library workshops; presented papers and moderated sessions at state and regional meetings; published a paper in *Arkansas Libraries*.

HONORS:

Beta Phi Mu
Murray Gottlieb Prize, Medical Library Association, 1978
Medical Library Association Certification and Re-Certification, 1977-1992

REFERENCES:

Available upon request.

JEAN HAMRICK

7714 Long Point Drive
Austin, Texas 78731

(512) 345-2684 (Home)
(512) 471-3811 (Work)

EXPERIENCE

September 1982 - Assistant Director for Information Systems Planning
The General Libraries, The University of Texas at Austin

Responsible for administration, coordination, and planning of automation and information systems activities with an emphasis on online system development and strategic planning and for participating in the overall policy, planning, and budgetary processes of the General Libraries.

March 1979 - August 1982 Assistant Director for Automation and Bibliographic Control
The General Libraries, The University of Texas at Austin

Responsible for administration and coordination of automation and bibliographic control operations including establishment of policy, procedures and standards and for participating in the overall policy, planning, and budgetary processes of the General Libraries.

September 1972 - February 1979 Assistant to the Director of General Libraries, Library Automation
The General Libraries, The University of Texas at Austin

Responsible for analysis of existing manual and automated systems, writing of specifications for acquiring and/or developing computer systems and equipment, staff training, quality control procedures for equipment maintenance, research into possible applications of evolving information technology to General Libraries operations, development and maintenance programming, and liaison between the General Libraries and the Administrative Data Processing Division.

September 1971 - May 1972 Research Associate, Graduate School of Library Science
The University of Texas at Austin

Participated as a team member in a feasibility study of centralized processing for five University of Texas system medical libraries under a grant from the National Library of Medicine.

September 1967 - August 1970 — Systems Analyst and Science/Technology Librarian
Alderman Library, The University of Virginia

Implemented a batch circulation systems; supervised a NASA cataloging and indexing project; designed a selective dissemination of information system for science faculty; provided reference and information services; managed the Science and Technology Information Center in the absence of the Director.

July 1965 - July 1967 — Assistant Data Processing Librarian
Price Gilbert Memorial Library, Georgia Institute of Technology

Responsible for systems design and programming for serials and cataloging applications.

October 1961 - February 1965 — Intern in Cataloging
Cataloging Reviser
Head Cataloger for Undergraduate and branch libraries
Widener Library, Harvard University

Original and copy cataloging.

TEACHING

Systems Analysis; Graduate School of Library Science, The University of Texas at Austin; Fall, 1983.

COBOL; School of General Studies, The University of Vitginia; Fall 1969, Spring, 1970.

EDUCATION

1961 — B.A., Texas Christian University

1963 — M.L.S., Simmons College

1970-1985 — Courses in computer science, information science, and business, The University of Texas at Austin

1985- — Courses toward PhD in Management of Information Systems, Graduate School of Business, University of Texas at Austin

SELECTED PROFESSIONAL ACTIVITIES

American Library Association (LAMA, LITA, RTSD)
- LAMA. Circulation Services Section. Operations Research Committee
- RTSD/RASD/LITA. Representation in Machine Readable Form of Bibliographic Information Committee
- RTSD. Technical Services Directors of Large Research Libraries Discussion Group, Chair
- Speaker, Online Catalogs Discussion Group, "Evaluation of Data Base Management Systems to Support Online Catalogs"
- ALA Voting Representative to NISO

Council on Library Resources
- Invited Participant
  - Online Patron Access Working Session, Dartmouth, New Hampshire, 1980
  - Library Director / System Designer Working Session, Wye Plantation, Maryland, 1982
  - Subject Headings Information Session, January 1984
  - Library of Congress, Washington Library Network, Research Libraries Group Linked Systems Project Working Session, January 1984

University of Texas at Austin
- Member, Ad Hoc Text Processing Task Force. Appointed by Vice President for Research " to advise the Faculty Computer Committee on computer text processing"; spring 1981
- Member, Ad Hoc Subcommittee of University Faculty Computer Committee to advise on next five year computing plan for the University; spring 1982
- Member, Computer Security Task Force. Subcommittee on "Other" Databases summer 1983
- Member, Network Technical Advisory Group to advise on matters related to campus computer networking
- Guest lecturer, Graduate School of Library Science; periodically since 1980

National Information Standards Organization (NISO)
- Member, Standards Committee LL : Exchange of Circulation Systems Data

Speaker
- Special Libraries Association Conference, Houston, Texas, September, 1980, "Building In-House Databases"
- Texas Library Association Preconference, March, 1981, "Hardware and Software to Support Online Library Catalogs"
- Joint Meeting of Society of University Librarians, Austin Library Club, and State Agency Librarians of Texas, March 1982, "State of the Art Library Automation"

RESUME

J. Richard Madaus
P.O. Box 1221
Tahlequah, Oklahoma 74465

Age 43
Marital Status:
Married
No Children

Telephone: Home (918) 456-5310
Office (918) 456-5511, ext. 3200

EDUCATION:

B. A. June, 1967 -- Louisiana State University In New Orelans
(now the University of New Orleans)
Specialization: Education, Major: Social Studies
Minor: Library Science

M. L. S. August, 1970 -- The University of Texas at Austin

Activity Specialization: Library Automation and Systems Design

Ph. D. August, 1974 -- The University of Texas at Austin

Specialization: Curriculum and Instruction
(Instructional Technology)

Dissertation Title: Curriculum Involvement, Teaching Structure, and Personality Factors of Librarians in School Media Programs

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WORK HISTORY:

July, 1981 - Dean of Library and Learning Resources, Northeastern State University, Tahlequah, Oklahoma

1978-1981 - Associate Director for Library Services and Development, Arkansas State Library, Little Rock, Arkansas

1974-1978 - Library Director, Chairman, Department of Library Science, Henderson State University, Arkadelphia, Arkansas

1971-1974 - Head, Audio-Visual Education Media, Lyndon B. Johnson School of Public Affairs, The University of Texas at Austin

1968-1971 - Senior Library Assistant, The General Libraries, The University of Texas at Austin

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PRESENT
EMPLOYMENT: July, 1981 -- Dean of Library and Learning Resources, Associate Professor of Library Services, Northeastern State University, Tahlequah, Oklahoma

DUTIES:

Administer the library/learning resources program of the university. Manage a budget of over 1.2 million dollars and a staff of 15 professional librarians, 19 technical personnel, and 82 part time student assistants. Responsibility for the program includes all traditional library services, university archives, special collections, audio visual collections and services (including television studio and cable system), and operation of the campus studio of the statewide talkback television system.

SPECIAL PROJECTS:

Wrote successful grant proposal resulting in funding by the Oklahoma State Regents Kellogg-project to enable the three VTLS systems in Oklahoma to interconnect mainframes and software in order to allow student access to all three computers with document delivery via FAX. Served as project manager for all aspects of the project.

Supervised and managed the acquisition and installation of VTLS integrated online library system. This included developing detailed bid specifications, contract negotiations, equipment installation and overall supervision of all aspects of implementation.

Wrote successful grant proposal resulting in donation of $215,000 computer equipment from the Hewlett Packard Foundation.

Co-designed statewide library survey instrument for use in the Regents Annual Academic Library Survey. Designed and wrote microcomputer software to analyze survey data. Software included statewide circulation and library utilization annual projection.

Co-sponsored satellite video dish installation to allow Spanish language classes access to Mexican national television programming.

Expanded library computer services available to faculty and students by the addition of Lockheed DIALOG, MEDLINE, WESTLAW, WILSONLINE, LION and the Daily Oklahoman data bases. Expanded OCLC activity by the addition and implementation of the OCLC Acquisitions Subsystem, and the OCLC SC350 Serials Control System. Upgraded OCLC services with the addition of five M300 IBM-PC terminals. Added CD-ROM products to the general reference area for

open student use.
Developed and implemented library wide office automation utilizing integrated software and twelve IBM-PC's.
Reassessment and redesign of the library/learning resources program. Implemented changes resulted in a 72% increase in library attendance and a 62% increase in library usage in a three year period. Further results included North Central Accrediting Association listing of library services as a university strength.
Redesign and comprehensive rearrangement of library physical facilities. This included the movement of every book and bookshelf in order to promote a user oriented environment and allow development and expansion of computer based services.
Redesign of library fiscal organization. Organized library operations budget to allow functional cost analysis. Established "sinking fund" approach to library equipment needs.
Implemented faculty liaison and consultation program ("Resource Coordination") for the purpose of evaluation of services and providing faculty input into library collections development.
Implemented comprehensive statistical reporting system to account all types of library usage. Results demonstrated that only 18% of library usage was previously recorded.

ACTIVITIES:

Consultant to the University of Arkansas at Little Rock for library automation development project, May, 1988.
Elected Vice President/President Elect of the Oklahoma Chapter of the Association of College and Research Libraries, December, 1987.
Author, "Academic Library Funding and Professional Ethics." College and Research Library News, November, 1987.
Featured Speaker, Oklahoma Library Association, April, 1987. Topic, "Can Strong Reference Service Survive Weak Budgets?"
Elected alternate AMIGOS Representative to OCLC User's Council, 1987-.
Table Topics Speaker, "Microcomputing in Academic Libraries," AMIGOS Membership Meeting, November, 1986.
Member, Telecommunications Network Advisory Committee, Oklahoma Network for Continuing Higher Education, 1986-.
Conference Chair, Kellogg grant sponsored Conference on Oklahoma Academic Library Leadership Development, October, 1986. Presented paper "Nonprint Library Resources in the Age of Expanding Knowledge" published by the Oklahoma Network of Continuing Higher Education in the Collection of Papers, Leadership Development Program.
Member, AMIGOS Library Network Board of Trustees, 1985-86.

Member, Regents Library Advisory Committee, 1984-.
Guest Lecturer, University of Oklahoma Library School, Topic: "Information Management and Academic Librarianship", March, 1984.
Graduate, American Council on Education, Departmental Leadership Institute, 1983.
Listed in Who's Who in Library and Information Science, 1982.
Member, Council of Academic Administrators, Northeastern State University, 1981-.
Member, Regent's Library Council For The University Center At Tulsa (UCAT), 1982-.
Member, Steering Committee To Establish the Oklahoma Special Collections And Archives Network (OSCAN), 1982-83.
University Committees: Graduate Council, 1981-; Data Processing Advisory, 1981-; Personnel, 1982; Financial Aids Advisory, 1982; Indian Heritage Week, 1982-; Annual Canoe Race Official, 1981-.

PREVIOUS EMPLOYMENT: 1978-1981 -- Associate Director for Library Services and Development, Arkansas State Library, Little Rock, Arkansas

DUTIES:

Acted in the capacity of Associate Director of the agency. This entailed three basic areas of activity:

a) Responsible for strategic decisions concerning agency policy, direction, and planning, including major budget planning responsibility for the agency's operational budget of 1.4 million dollars, plus 1.6 million dollars in state aid to local public libraries and $775,000 in federal LSCA funds. Carried out administrative functions agency-wide in the absence of the Director:

b) Served as chief administrator in the Library Services and Development Division of the agency with a staff of 40 and an operational budget of over $500,000. This area included the State Library (Reference, Circulation, Government Documents, and the Interlibrary Loan Network Office), Statewide Extension Service (including the award and monitoring of over 1.6 million dollars of state aid to local libraries), Library Service to the Institutionalized, Statewide Continuing Education, Library for the Blind and Physically Handicapped, and the administration of over $500,000 in federal LSCA programming;

c) Served as resource liaison to library development

activities statewide to all types of libraries -- Public, School, Academic, and Special, for improvement and coordination of library services including interlibrary cooperative efforts, network support, and the development, refinement, and delivery of specialized services.

SPECIAL PROJECTS:

Major architectural design responsibility for the construction of the new state library facility (opened January, 1979).
Project Supervisor for the move of the Arkansas Library Commission (from seven buildings in downtown Little Rock) to the new facility of the Capitol Mall.
Comprehensive reorganization of services design, personnel staffing model, statistical support system and management structure to implement new legislation expanding the Arkansas Library Commission to become the Arkansas State Library.
Study of geographic location and educational qualifications of school, academic, and public librarians in Arkansas.
Design and implementation of statewide reference and interlibrary loan network for public libraries utilizing In-WATS telephone service, the OCLC online computer system, and online literature searching systems.
Advisory input to the Arkansas Union List on Microfiche Project, an exemplary effort combining all OCLC input within the state into a unified COM catalog for resource sharing purposes.

ACTIVITIES:

Keynote Speaker, Oklahoma Department of Education Workshop On Micro Computers In Libraries, September, 1980.
Represented Arkansas at the Western Council Conference On Resource Sharing, Snowmass, Colorado, September, 1980.
Graduate, Arkansas Government Executive Management Institute, May, 1980.
Represented Arkansas at the Fifth Assembly of State Librarians, The Library of Congress, April, 1980.
Member, Regional Advisory Council, TALON (Texas, Arkansas, Louisiana, Oklahoma, New Mexico) Regional Medical Library Network, 1980.
Member, Advisory Council on Information Dissemination, Arkansas State Department of Education, 1980.
Member, Constitution Committee, Arkansas Library Association, 1980.
Small Group Discussion Facilitator, White House Conference on Libraries and Information Services, Washington, 1979.
Adjunct Graduate Faculty, University of Arkansas at Little Rock, Fall, 1979 (Course: Library Information Systems).

Treasurer and Executive Board Member, AMIGOS Bibliographic Council (Southwest Regional Network, OCLC), 1978-1979.
Alternate Arkansas representative to COSLA (Chief Officers of State Library Agencies).
Arkansas representative to CLENE (Continuing Library Education Network and Exchange), a national developmental network of continuing library education.
Planning Committee and Conference Staff, Governor's Pre-White House Conference on Library and Information Services, 1978.
Advisory Input: Department of Higher Education Master Planning Committee for Computer Development, 1979.
Chairman, Education Committee, Arkansas Library Association, 1979.
Co-author: Arkansas Funds Its Libraries, a position paper of the Governor's Pre-White House Conference on Libraries and Information Services, 1978.
Co-author: Long Range Program for Library Development in Arkansas, 1979-1984, Fall, 1979.
Guest Editor, Automation Issue, Arkansas Libraries, Vol. 35, No. 3, 1978, Author: "Automation-Ease" (same issue)

1974-1978 -- Library Director, Associate Professor of Library Science, Chairman, Department of Library Science, Henderson State University, Arkadelphia, Arkansas

DUTIES:

Administered the library program of the university. Managed a budget of $275,000 and a staff of six professional librarians, 14 support staff, and 22 part time student assistants. (Circulation of library materials rose from 49,000 per year to 185,000 per year during my administration. Use of reference and information services rose from less than 1,000 to over 50,000 questions answered annually.) Administered and taught within the Library Education program of the university. Implemented a complete restructure of course offerings and organization of the library science curriculum.

SPECIAL PROJECTS:

Complete reorganization of Huie Library toward an information management based public services emphasis. Results: 100% circulation increase within two years, and library attendance rose 180% in three years (see article "Aggressive Reference Service", Arkansas Libraries, Vol. 33, No. 2, 1976, and Part II, Vol. 36, No. 2, 1979).
Design and implementation of faculty consultation program ("Resource Coordination") for the purpose of evaluation of library services and providing faculty input into

library collections development. Result: NCATE Accrediting Association commendation for faculty role in building library quality.

Redesign of library fiscal organization. Result: Equitable departmentalized budgeting process, reduction of 130% encumbered - 70% expended budget to 100% encumbered - 100% expended library budget.

Organization and implementation of a Technical Services design based on affiliation with the OCLC online computer system. Result: Elimination of Technical Services backlogs, reduction of faculty-order to on-shelf time from one year average to six weeks average.

Design and implementation of an automated serials acquisition and control system utilizing the university computer.

Design and implementation of statistical reporting system to account all types of library usage: books, magazines, AV material, reference contacts, interlibrary loan, faculty consultation, check out, and in-house usage. Results were then utilized within the budget process for effective cost analysis.

Design and implementation of a library personnel staffing model for professional, technical, and clerical employees. Technical staffing model was used by the State Personnel Office as the design for Library Technical Assistant I, II, and III incorporated into the State Personnel Classification System.

ACTIVITIES:

Treasurer and Executive Board Member, AMIGOS Bibliographic Council, 1977-1978.

Chairman, Public Relations Committee, Arkansas Library Association, 1978.

Member, Task Force on the Redesign of Certification for School Media Professionals, Final Draft Preparation Committee, 1977-1978.

Member, LSCA Advisory Council to the Arkansas Library Commission, 1975-1978.

Chairman, College and University Division, Arkansas Library Association, 1977.

Authored a 20 page report containing professional concerns of the College and University Division, Arkansas Library Association, submitted to the Arkansas Post Secondary Education Planning Committee (1202 Commission), 1977.

Organized and implemented a workshop on the new copyright law for 75 college and public librarians, 1977.

Member, Arkansas Department of Higher Education, Library Funding Advisory Committee, 1975-1976.

Member, Curriculum Redesign and Implementation Committee, Arkansas Council on Library Education, 1976.

Vice-Chair and Program Coordinator, College and University Division, Arkansas Library Association, 1976.

Member, Faculty Senate, Henderson State University, 1976-77.
President, Advisory Council to the Clark County Public Library, 1975.

1971-1974 -- Audiovisual Education Media Specialist, Lyndon B. Johnson School of Public Affairs, The University of Texas at Austin

DUTIES:

Established and directed the non-print media services for the unique program of the LBJ School. This involved multi-media program development and production, innovative use of videotape, audiotape, and still picture services. Coordinated services in combined LBJ School - Lyndon Baines Johnson Presidential Library programs and activities.

ACTIVITIES:

Special consultant to the Lyndon Baines Johnson Presidential Library for:

Symposium on Civil Rights, December, 1972
Symposium on Urban Affairs, October, 1973
Rockefeller Commission on Critical Choices, Johnson Library Meeting, April, 1974
Various on-going joint projects involving videotape and television activity.

1968-1971 -- Senior Library Assistant, The General Libraries, The University of Texas at Austin

DUTIES:

Supervised the acquisition process for materials of the Undergraduate Library unit of the University of Texas library system. Also handled Harrassowitz (Western European), Blackwell (Great Britain), and University Press blanket standing order programs. Performed bibliographic searching and verification on rare materials, Texana, and rush order items. Also worked in the Circulation Department and Collection Maintenance areas of the Undergraduate Library. (Approximately eight months each work area.)

ACTIVITIES:

Served as Automation Consultant Assistant, Ad Hoc Committee on New Campus Coordinated Library Development, Coordinating Board, Texas College and University System, Spring, 1970.

Attended the O.E.O. Institute on Improvement of Library Services to the American Indian, July-August, 1970.
Served as President of the Graduate Students of Library and and Information Sciences Association, 1970.
Served on the American Library Association Task Force on American Indians, 1971.

MILITARY SERVICE:

1967-1968 -- Active Service, U.S. Navy, Petty Officer Second Class, Awarded: Viet Nam Service Medal with two campaign stars, Viet Nam Combat Campaign Medal (RVN), Naval Reserve Meritorious Service Ribbon, National Defense Service Medal.

DUTIES:

Supervised clerical support staff of five enlisted men on a Destroyer at sea; performed the duties of Captains' Yeoman. Includes nine months combat experience in the Viet Nam conflict.

SPECIAL PROJECTS:

Established, organized, and developed medical library collections and services in addition to reorganization and development of in-patient library services while hospitalized with a broken leg at the U.S. Naval Hospital, Key West, Florida.

1963-1967
1969-1971 -- Reserve Service, U.S. Navy, Honorable Discharge, February, 1971.

Sherrie Schmidt
2900 Kassarine Pass
Austin, Texas 78704
512-445-6862 (Home), 409-845-8111 (Office)

EDUCATION

1974	M. Ln.	Emory University, Atlanta, Georgia.
1970	B. A.	Ohio State University, Columbus, Ohio. Major in Sociology.

EXPERIENCE

11/86-present	Assistant Director for Collection and Bibliographic Services. Sterling C. Evans Library. Texas A&M University. Plan, coordinate and monitor the selection, acquisition, cataloging, circulation, and preservation activities of the Library.
5/84-11/86	Assistant for Information Systems Planning. General Libraries, University of Texas at Austin. Assisted in planning for the development, implementation, and support of locally developed library information systems. Evaluated and selected equipment necessary for systems. Coordinated training for users of the systems which were developed.
7/82-4/84	Southwest Representative. Faxon Company, Westwood, Massachusetts. Demonstrated and sold an automated serials management system. Increased the subscription sales volume by 17% in a seven state territory.
5/79-6/82	Associate Director for Library Services. University of Texas at Dallas. Planned, coordinated, and monitored all areas of technical and public services. Supervised the Acquisition and Collection Development, Cataloging, Circulation, Reference, and Serials Departments.
9/75-6/78	Head, User Services. AMIGOS Bibliographic Council, Dallas, Texas. Planned and coordinated training of 120 member libraries in utilization of OCLC system. Advised libraries in planning for use of machine-readable records. Supervised three Library Liaison Officers.

9/74-8/75 Cataloger. University of Florida, Gainsville, Florida. Planned for and implemented OCLC in Catalog Department. This included workflow analysis, MARC tagging training and terminal training.

12/70-9/73 Library Assistant, Bibliographic Records Division. Ohio State University, Columbus, Ohio. Trained and supervised operators for input of original cataloging. Reconciled post-card-production name authority problems and differences between manual and machine records in the Library Circulation System.

PUBLICATIONS

"Automation". Texas Library Journal, Volume 61, Number 4, Winter 1985, p. 120, 138.

"Using dBaseIII+ to Create a Serials Review List." (With Jane Treadwell and Gloriana St. Clair). Microcomputers for Information Management, Volume 5, Number 3, September 1988, p. 169-182.

PAPERS PRESENTED

"Choosing a Bibliographic Utility." Keynote address at conference of same name, sponsored by Niagara University, Niagara Falls, New York, May 7-8, 1986.

"Automation and Collection Development". RTSD Collection Management and Development Institute, San Antonio, Texas, 15-18 May 1985.

"Authority Control in the Automated Environment". Fourth Texas Conference on Library Automation, Houston, Texas, 9-10 April 1985.

PROFESSIONAL ACTIVITIES

OCLC User's Council. Member representing AMIGOS Bibliographic Council 1987-1990.

American Library Association. Library and Information Technology Association. Member, 1974-1987. President, 1988-1989. Publications Committee, 1981-87. Chair, Electronic Publications Committee, 1984-1986. Chair, Nominating Committee, 1984. Member, Executive Board, Information Science and Automation Section, 1982-84. Member, ad hoc committee to study and recommend changes in the organizational structure of the Division, 1983.

Member, LITA 1983 National Conference Steering Committee, 1982-83. Member, LITA Awards Committee, 1982. Member, Program Planning Committee, 1978-81.

American Library Association. Resources and Technical Services Division. Member, 1974- . Member, Commercial Technical Services Committee, 1980-1982.

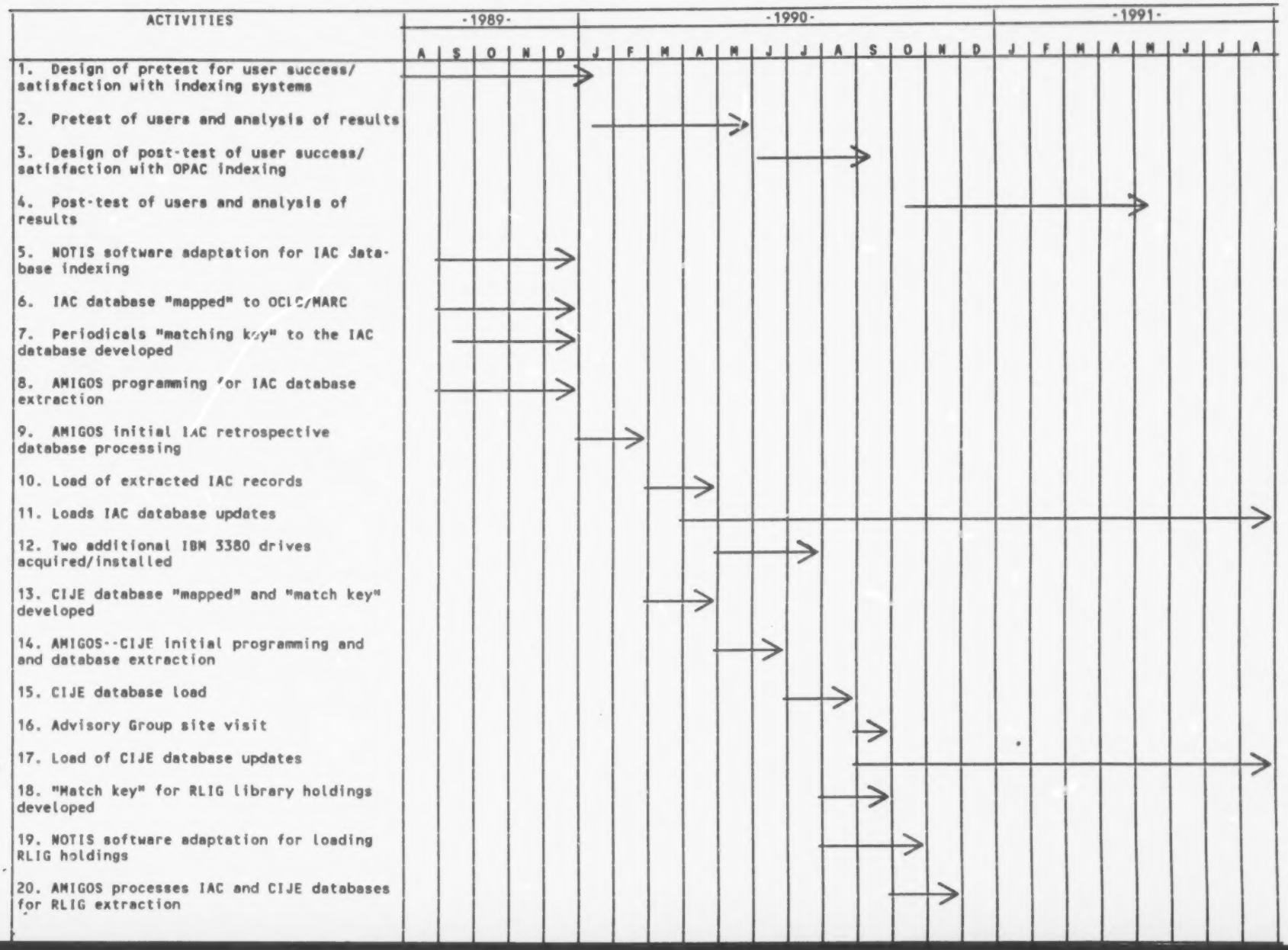
American Library Association. Association of College and Research Libraries. Member, 1974- .

Texas Library Association. Member, 1977- . Council member representing Acquisitions Round Table, 1981-1984.

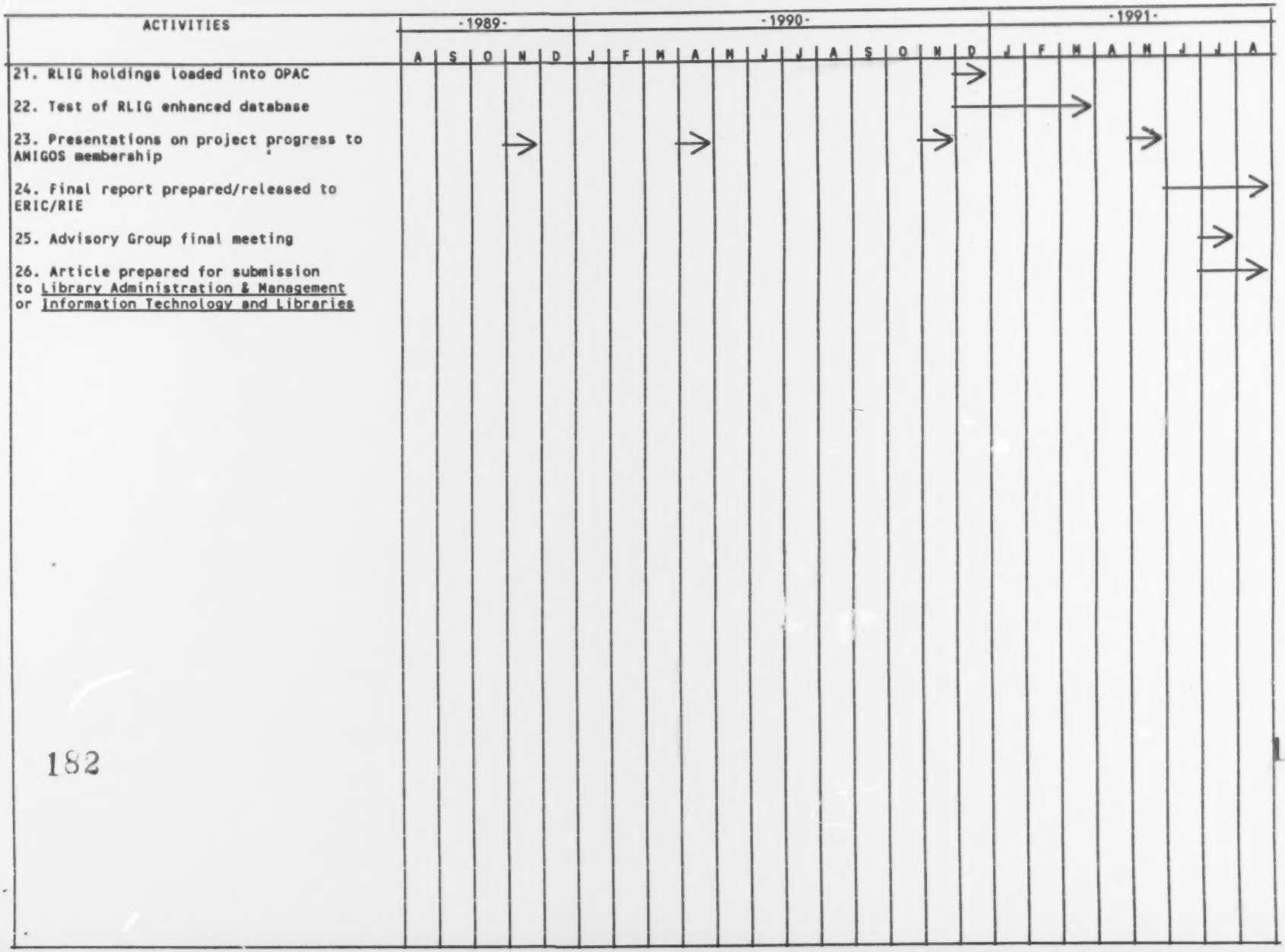
CONSULTING

1986,87	MINITEX and state library agencies of Minnesota, North Dakota, and South Dakota. Planned and presented with Susan Epstein three two-day sessions entitled, "Change in Libraries: Automation as Its Catalyst".
1982	University of Alabama. Tuscaloosa, Alabama. Evaluated organization of public services.
1978	Rice University Library. Houston, Texas. Recommended appropriate utilization of OCLC.
1978	University of Texas at Dallas Library. Evaluated organization and effectiveness of public services.

APPENDIX IV
PROJECT TIMETABLE


ACTIVITIES
-1989-
-1990-
-1991-
A S O N D J F M A M J J A S O N D J F M A M J J A
1. Design of pretest for user success/ satisfaction with indexing systems
2. Pretest of users and analysis of results
3. Design of post-test of user success/ satisfaction with OPAC indexing
4. Post-test of users and analysis of results
5. NOTIS software adaptation for IAC data-base indexing
6. IAC database "mapped" to OCLC/MARC
7. Periodicals "matching key" to the IAC database developed
8. AMIGOS programming for IAC database extraction
9. AMIGOS initial IAC retrospective database processing
10. Load of extracted IAC records
11. Loads IAC database updates
12. Two additional IBM 3380 drives acquired/installed
13. CIJE database "mapped" and "match key" developed
14. AMIGOS--CIJE initial programming and and database extraction
15. CIJE database load
16. Advisory Group site visit
17. Load of CIJE database updates
18. "Match key" for RLIG library holdings developed
19. NOTIS software adaptation for loading RLIG holdings
20. AMIGOS processes IAC and CIJE databases for RLIG extraction

APPENDIX IV
PROJECT TIMETABLE
(continued)


ACTIVITIES
-1989-
-1990-
-1991-
A S O N D J F M A M J J A S O N D J F M A M J J A
21. RLIG holdings loaded into OPAC
22. Test of RLIG enhanced database
23. Presentations on project progress to AMIGOS membership
24. Final report prepared/released to ERIC/RIE
25. Advisory Group final meeting
26. Article prepared for submission to Library Administration & Management or Information Technology and Libraries

APPENDIX V

LIBRARY ADMINISTRATORS' LETTERS

Arizona State University

University Libraries
Office of the Dean
Tempe, Arizona 85287-1006
602/965-3950

December 22, 1988

Dr. Charles B. Lowry
Director of Libraries
University of Texas
at Arlington
P.O. Box 19497
Arlington, Texas 76019

Dear Charles:

Thank you for providing me the opportunity to objectively evaluate your demonstration grant proposal ("Online Public Access Catalog Enhancement Project"). After reading the proposal, I quickly concluded that it is well written, delineated regarding how and who is going to do the work, and the project's results will make a substantial impact on the services offered by the University of Texas at Arlington Libraries and subsequently by those relevent services offered by the member libraries in the Texas Association for Higher Education Consortium.

The project reflects an innovative approach via technology in providing an effective means for generating greater use of journals. I particularly like the two-fold approach whereby the use of local library journals will be enhanced as well as those journals in other libraries (through resource sharing). It is critical for us librarians to create means for realizing better and greater use of journals. Online catalogs have to be more than a duplication of the card catalog; they have to contain the various subsets of the library's total holdings (e.g., maps, journals, manuscripts). Your project is right on target.

There is no question about the desirability of this project. As mentioned above, greater effort must take place in developing online catalogs to their fullest capacity. We will undoubtedly witness several endeavors in the near future to exploit online catalogs. It would be very useful if the library community had a library (such as the University of Texas at Arlington) to consult about the trials/errors/successes experienced with this project.

You are to be commended for taking the leadership in writing this proposal which will (if funded) serve as a prototype for the nation's libraries. The expertise on your staff and that on the AMIGOS Bibliographic Council staff are well qualified to make this proposal happen.

Sincerely,

Don Riggs

Donald E. Riggs
Dean

CARL systems, inc.

777 Grant, Suite 304
Denver, Colorado 80203
(303)861-5319

December 30, 1988

Louella V. Wetherbee
Executive Director
AMIGOS Bibliographic Council Inc.
11300 North Central Expressway
Suite 321
Dallas, Texas 75243

Charles Lowry, PhD.
Director of Libraries
University of Texas at Arlington
P.O.Box 19497
Arlington, TX 76019

Dear Lou and Charles:

It is a pleasure to be able to provide this letter of support for your grant proposal seeking funding for a demonstration project under the College Library Technology and Cooperation Grants Program. I have reviewed the description of the project and offer the following comments in its support:

Criteria (ii) looks for evidence from library users, library educators, or library administrators that the research or demonstration project is desirable.

The Colorado Alliance of Research Libraries (CARL) using its own developed integrated online library management system (The CARL System) has direct experience in activities similar to those described in the project proposal. Specifically, CARL has mounted files from Information Access (IAC) which provided journal indexing information and has mounted as well textual files such as the full text of the Grolier's Encyclopedia.

Our users, who number approximately 35,000 daily and include researchers, faculty and the general citizenry of the Denver metropolitan area, have clearly found these databases included in the online public access catalog environment to be extremely useful. We have received numerous letters of support from these users; an even better test, we have tracked the usage statistically of these files and found them to be high.

CARL is presently creating a periodical article index which is mirrored to the collections of the libraries we serve and therefore comparable in nature to the project proposed at UTA and AMIGOS. Though the database has only been accessible to the general public for a month, it has already proven to be highly popular, particularly among scientists and researchers.

These comments concerning CARL's experience are evidence that Criteria (ii) will be met easily within the project proposed.

Criteria (iii) discusses the relationship of the project to national or regional needs in utilizing technology to enhance library or information sciences. I feel that the second year of this project, in which the

inclusion of collection information is extended to the other members of the Consortium (as described on page 14), is of particular and significant value.

Again, direct experience at CARL, where we serve a consortium of six primary members and roughly 30 other associate members, indicates that a journal access project will be most valuable if it can include the collections and holdings information from many institutions rather than a single one. In addition, it is the inclusion of other libraries and their collections, combined with technology such as telefacsimile (referenced on page 14 as well) which will enable these libraries to achieve greater efficiencies in the specific area of journal acquisitions. For example, CARL in its present article access project has also included specific issue holdings information from member libraries, and will use that information to develop an effective document delivery system. Once in place, that delivery system will allow our member libraries to deselect certain journal titles without impairing in any way access to the articles in those journals which are needed by the users of the library.

Clearly, the UTA and AMIGOS project as described will benefit UTA initially, but will move quickly to benefit at a minimum the other five research libraries.

Finally, it is clear that Criteria (v), dissemination of the results of the project, will be met through a variety of means. Criteria (iv), consultation with others in the field who are undertaking similar research, is an area which should continue throughout the project. Indeed, I would suggest that UTA and AMIGOS, while pursuing the project as outlined, also include where possible experiments with other groups and projects which are comparable and complimentary in nature. To that end, I would welcome on behalf of CARL the opportunity to work with both UTA and AMIGOS within the confines of the project, or outside it, where appropriate and beneficial to you and to the project..

Again, thank you for offering me this opportunity to share my own observations of the project proposed. I wish you both much success and feel clearly that it is a worthwhile endeavor. If I can be of any further service, I hope you'll feel free to contact me.

Sincerely,

Rebecca T. Lenzini

Rebecca T. Lenzini
President

RL/gv

INFORMATION ACCESS COMPANY

362 Lakeside Drive
Foster City, California 94404
415/378-5000
800/227-8431

MEMO

TO: Lou Wetherbee
AMIGOS Bibliographic Council

FROM: Jeffrey D. Zane
Information Access Company

SUBJECT: IAC Database Tape Leasing

Thank you for sending me the information on your proposed project with the University of Texas at Arlington. We are interested in exploring this project further and would appreciate the opportunity to work with you in formulating a licensing arrangement for our databases.

As you may be aware, several university libraries are now supporting local retrieval systems, primarily because of the predictability of costs and the wide distribution. This year we have had many requests from schools that are examining the possibility of loading our databases on their systems. Typically, we have approached each situation in a similar manner, and that is to provide a site license agreement for each campus location. Unlike other database producers, we do not impose unreasonable restraints on the school such as tracking how much the file is used, number of "hits" obtained and so forth. In fact, we are quite flexible in our program and allow the lessee to choose any combination of our available files.

There is an article in the Fall issue of RQ that describes the systems in place at Carnegie Mellon and USC. Thusfar none of the lessees have done much manipulation of our data, other than stripping out older years and duplicate records. I am anxious to see how you plan to augment the MARC records with bibliographic databases.

Once again, we look forward to working with you on this project. Please let me know how we may be of further assistance.

© Information Access Company

APPENDIX VI

"LEADING EXPERTS'" LETTERS

ARIZONA STATE
UNIVERSITY TEMPE, ARIZONA 85287
UNIVERSITY LIBRARIES

December 30, 1988

Dr. Charles Lowry
Director of Libraries
University of Texas at Arlington
P.O. Box 19497
Arlington, TX 76019

Dear Charles:

I think your proposal to enhance the online catalog at UT-Arlington with the IAC and ERIC databases is excellent. As we discussed, I believe that the online catalog provides libraries with a powerful information retrieval tool that can be expanded and enhanced to better serve library users. The catalog is the central file that virtually all users consult when they come to the library. Placing additional databases into the online catalog allows us to present a multitude of new services in a single, familiar environment.

Your plan to tailor the databases to reflect the holdings of your library is especially interesting. There is some debate over whether libraries should provide access to all the titles in a periodical index or only to those titles held by the library. If funded, your project could provide an arena to test which option is actually preferable to the library user and whether the less expensive approach you offer can satisfy the majority of demand.

As the editor of Information Technology and Libraries and as the immediate past-president of the Library and Information Technology Association, I am well acquainted with many projects now underway to expand the online catalog. I believe that your project will be of particular value to the profession.

Sincerely,

Bill

William Gray Potter, Ph.D.
Associate Dean of Libraries for
Technical Services, Automation, and Systems

University of North Texas

School of Library and
Information Sciences

December 21, 1988

Dr. Charles Lowry, Director of Libraries
University of Texas at Arlington
P.O. Box 19497
Arlington, TX 76019

Dear Dr. Lowry:

I wish to indicate my support for your grant proposal under the College Library Technology and Cooperation Grants Program for an Online Public Access Catalog Enhancement Project.

I am excited by the proposal; the results of the project will fill a sorely-felt need by many libraries of all sizes across the country. As a former manager of a large integrated system at the University of Houston, I remember the many queries (and complaints) from OPAC users that they could not access individual articles within serial titles. We often talked about experimenting with such a system, but never had the time or money to pursue the problem. The results of your project will provide results which can be used widely.

The approach described in the proposal is sophisticated, versatile, and innovative. The results will immediately benefit the users of your OPAC by enabling them to gain access to periodical articles needed in their research and educational activities. The linking of other local systems into a network will ultimately benefit thousands of other users throughout the region. The network has the potential of greatly improving access, and document delivery, throughout the area, and to eventually link with other regional and national networks. This grant can help the area's libraries make the fullest use of their and other collection resources.

I believe also that your approach is sound, workable, and realistic within your resources and time schedule. I see no reason why your objectives cannot be met, and exceeded. Certainly, many other libraries will be wishing you well so that they may learn from your experiences.

I wish you well on the proposal and, when funded, on the project. If I can be of any assistance, please do not hesitate to contact me.

Sincerely,

John Corbin, Ph.D.
Associate Professor

P.O. Box 13796 • Denton, Texas 76203-3796
817/565-2445

OCLC

6565 Frantz Road Dublin, Ohio 43017-0702 (614) 764-6000 TWX 810-339-2026

1989 January 5

TO WHOM IT MAY CONCERN:

The pilot project proposed by the University of Texas at Arlington Libraries in collaboration with AMIGOS Bibliographic Council to provide online periodical indexing to library holdings is of high quality, important to the field, and deserving of funding.

Successful completion of the project will demonstrate the usefulness of providing such holdings through the OPAC environment and explore the problems and costs of doing so. It is the crucial next step in enabling the library to extend its information delivery services through automation and has long been desired by library patrons.

The institutions and individuals committed through the proposal to the project are fully capable of carrying out the detailed plans presented and should succeed in achieving their objectives. The plan itself is appropriate and should serve as an important stepping stone in the evolution of libraries and library service.

I recommend that the College Library Technology and Cooperation Grants Program give every consideration to the funding of this proposal.

Sincerely,

Martin Dillon
Director
Office of Research

MD:jm

OCLC Online Computer Library Center, Inc

UNIVERSITY OF CALIFORNIA, LOS ANGELES UCLA

BERKELEY · DAVIS · IRVINE · LOS ANGELES · RIVERSIDE · SAN DIEGO · SAN FRANCISCO SANTA BARBARA · SANTA CRUZ

GRADUATE SCHOOL OF LIBRARY AND
INFORMATION SCIENCE
405 HILGARD AVENUE
LOS ANGELES, CALIFORNIA 90024-1520

7 January 1989

Louella V. Wetherbee, Executive Director
Amigos Bibliographic Council, Inc.
11300 North Central Expressway, Suite 321
Dallas, Texas 75243

Dr. Charles Lowry, Director of Libraries
University of Texas at Arlington
P.O. Box 19497
Arlington, Texas 76019

Dear Louella and Charles,

I am writing in response to your request for comment on the proposal you plan to submit for a demonstration project under the College Library Technology and Cooperation Grants Program. You have asked specifically for commentary on criterion 1, concerning whether this is an innovative approach, and I will focus my comments upon it, but I want to start with criterion 2, which is the most crucial in my own view.

The OPAC (online public access catalog) is revolutionizing the ways in which users of libraries are gaining access to library materials, both within individual libraries and through inter-library cooperation. For evidence, one need merely look at the levels of use being made of terminals in the libraries with an OPAC. Beyond that, though, is the extensive use from outside the library itself — in faculty offices, from homes, from the classrooms, from the students' dormitory rooms. The result is not only increased access to the collection but increased value of the catalog itself as a tool in research. I can attest from personal experience, with just one small experiment, on the value of providing journal index access as part of the OPAC services.

To date, of course, the primary content of the OPAC has been catalog records of the book collection. The MARC standard, combined with the availability of data from the bibliographic utilities and increasing input of records from retrospective conversion, has finally brought that use to a reality. But that is only the beginning of the potential, and the proposal you have prepared takes a big and most important step toward achievement of the next stage.

The availability of journal index data bases clearly provide the means for implementing much wider tools for access within the OPAC. In fact, it is merely an anomaly of history that the development of the bibliographic utilities has been separated from the catalog utilities, even though parallel to them. The approach presented in your proposal, by focusing on applying the MARC standard to the indexing records, is a most innovative and valuable contribution. The willingness of several data base distributors to participate

in your project is also a contribution of significance. It will establish a basis for such arrangements that will assist other libraries in carrying forward similar extensions of their OPACs.

The proposal demonstrates a clear knowledge of the technical problems that must be solved in demonstrating the feasibility and value of the proposed extension in OPAC services.

In summary, I heartily endorse the proposal and hope that you will be able to move forward in implementing the Project.

Sincerely yours,

Bob

Robert M. Hayes